DATE: August 7, 2026

ADDENDUM NO: ONE

PROJECT NO: PN002304B

PROJECT DESCRIPTION: IT Fiber Network Upgrade Phase 2
Various Locations District Wide

This Addendum is hereby made part of the Contract Documents of the above named Project. It supplements and modifies them as follows:

General:

1. The pre-bid conference attendee list is issued with this Addendum ONE.
2. Include unit pricing for asphalt and concrete paving repair that may be required for installation of the new work per specification issued in this Addendum ONE.
3. Provide deduct alternate for eliminating network leg from Green Trails Elementary to Olive Blvd as indicated in this Addendum ONE.
4. Provide allowance in the bid for minor tree trimming that may be required to install new cable. Major clearing that may be required will be a change order toward the contingency allowance.

Specifications:

1. Replace entirely Section 004322, Unit Prices Form with the attached new Section 004322, Unit Prices Form consisting of one page.
2. Add the attached new Section 004323, Alternates Form consisting of one page.
3. Replace entirely Section 004322, Unit Prices Form with the attached new Section 004322, Unit Prices Form consisting of one page.
4. Add the following paragraph to Section 011000, Summary in paragraph 1.04.C.2.a.4):

   "(c) Minor tree trimming as required to install new fiber line."
5. Add the following paragraph to Section 011000, Summary in paragraph 1.04.C.3.b:

   "3) Minor tree trimming as required to install new fiber line."
6. Add the following paragraph to Section 011000, Summary in paragraph 1.04.C.4.a.4):

   "(c) Minor tree trimming as required to install new fiber line."

7. Add the following paragraphs to Section 012200, Unit Prices in paragraph 1.08:

"J. Item J – Asphalt Paving Repair – ADD; Section 321123 – Asphalt Paving.
K. Item K – Concrete Paving Repair – ADD; Section 321313 – Concrete Paving."

8. Add the attached new Section 012300, Alternates consisting of two pages.
9. Add the attached new Section 321123, Aggregate Base Courses consisting of two pages.
10. Add the attached new Section 321216, Asphalt Paving consisting of three pages.
11. Add the attached new Section 321313, Concrete Paving consisting of four pages.

Drawings:

1. Replace the following text in Drawing T0.01, District Overall Fiber Route in Pricing Packages notes under each package:

"Tree Trimming as Required"

with the following text:

"Minor Tree Trimming as Required to Install New Fiber Lines."

END ADDENDUM NUMBER ONE

(This Addendum consists of 16 pages)

PRE-BID CONFERENCE **MANDATORY**

IT FIBER NETWORK UPGRADES PHASE 2
VARIOUS LOCATIONS DISTRICT WIDE
BID NUMBER 27-14
THURSDAY, AUGUST 6, 2026- 10:00A - MEET AT FRONT ENTRANCE TO DISTRICT OPERATIONS

COMPANY REPRESENTATIVE	COMPANY NAME	TELEPHONE NO.	EMAIL ADDRESS
MARTY COLLIER	PARKWAY SCHOOLS	314-415-8220	mcollier1@parkwayschools.net
Erik Wilson	Bond Architects	3145742195	ewilson@bondarchitectsinc.com
Janis Christopher	RTM		jchristopher@rtmec.com
NOLAN WHEELER	ADB COMPANIES	314-378-4073	nwheeler@adb-us.com
Dennis Martin	Parkway School Dist	314-267-9765	dmartin1@parkwayschools.net
Brandon Hogan	PSD	314-393-6633	bhogan@parkwayschool.net
Sasha Schmittgens	Reinhold	314-620-1092	sasha@reinholdelectric.com
Alexander McArthur	Parkway Schools	314-415-8152	amcarthur@parkwayschools.net
Will Johnston	Hackett Security	314-369-2556	wjohnston@hackettsecurity.com
Rob Adair	Gerstner Electric	314-495-3987	Radair@gerstnerelectric.com
GERALD FOSDICK	PARKWAY		gfosdick@parkwayschools.net

SECTION 004322
UNIT PRICES FORM

PARTICULARS

1.01 THE FOLLOWING IS THE LIST OF UNIT PRICES REFERENCED IN THE BID:

A. SUBMITTED BY: (Bidder Name)_____

B. TO (Owner): Parkway School District
   1. 363 North Woods Mill Road
   2. Chesterfield, Missouri 63017

C. dated _____ and which is an integral part of the Bid Form.

1.02 THE FOLLOWING ARE UNIT PRICES FOR SPECIFIC PORTIONS OF THE WORK AS LISTED, AND ARE APPLICABLE TO AUTHORIZED VARIATIONS FROM THE CONTRACT DOCUMENTS.

A. Quantities indicated below are for bid evaluation purposes only.

B. The unit quantity will be multiplied by the unit price and the product added to the base bid and any accepted alternate bids to determine the low bidder.

C. Actual quantities supplied or placed in the Work shall determine actual adjustment to the Contract Sum.

1.03 UNIT PRICE LIST:

A. Item A - Excavating Unsuitable Soil & Replacement With Granular Fill; Section 312316 - Excavation and Section 312323 - Fill : Quantity ____ cubic yards : $_____/cubic yard.

B. Item B - Excavating Unsuitable Soil In Trench & Replacement With Granular Fill; Section 312316.13 - ____ : Quantity 500 cubic yards : $_____/cubic yard.

C. Item C - Provide and Install Geotechnical Stabilization Fabric; Section 312323 - Fill and Section 312316.13 - Trenching : Quantity 500 square yards : $_____/square yard.

D. Item D - Site Rock Removal; Section 312316.26 - Rock Removal : Quantity 500 cubic yards : $_____/cubic yard.

E. Item E - Trenching Rock Removal; Section 312316.26 - Rock Removal: Quantity 500 cubic yards : $_____/cubic yard.

F. Item F - Hand Hole / Pull Box; Section 338200 - Telecommunication Outside Plant (OSP); Quanity 1 each: $ _____

G. Item G - Splice Box; Section 338200 - Telecommunication Outside Plant (OSP); Quantity 1 each: $ _____

H. Item H - Horizontal Directional Boring - ADD; Section 338200 - Telecommunication Outside Plant (OSP) Quantity 100 linear feet: $ _____ /linear feet

I. Item I - Horizontal Directional Boring - DEDUCT ; Section 338200 - Telecommunication Outside Plant (OSP) Quantity 100 linear feet ($ _____) /linear feet

J. Item J - Asphalt Paving Repair - ADD ; Section 321123 - Asphalt Paving Quantity 100 square feet ($ _____) /square feet

K. Item K - Concrete Paving Repair - ADD ; Section 321313 - Concrete Paving Quantity 100 square feet ($ _____) /square feet

END OF SECTION

SECTION 004323
ALTERNATES FORM

PARTICULARS

1.01 THE FOLLOWING IS THE LIST OF ALTERNATIVES REFERENCED IN THE BID:

A. SUBMITTED BY:

(Bidder Name) _____

B. TO (Owner): Parkway School District
   1. 363 North Woods Mill Road
   2. Chesterfield, Missouri 63017

C. dated _____ and which is an integral part of the Bid Form.

1.02 ALTERNATES LIST

A. THE FOLLOWING AMOUNTS SHALL BE DEDUCTED FROM THE BID AMOUNT:

B. ALTERNATE # 1: (DEDUCT) $ _____

END OF SECTION

SECTION 012300
ALTERNATES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Description of Alternates.

B. Procedures for pricing Alternates.

C. Documentation of changes to Contract Sum and Contract Time.

1.02 RELATED REQUIREMENTS

A. Document 002113 - Instructions to Bidders: Instructions for preparation of pricing for Alternates.

B. Document 004323 - Alternates Form: List of Alternates as supplement to Bid Form.

C. Document 005200 - Agreement Form: Incorporating monetary value of accepted Alternates.

1.03 ACCEPTANCE OF ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted Alternates will be identified in the Owner-Contractor Agreement.

B. Coordinate related work and modify surrounding work to integrate the Work of each Alternate.

1.04 SCHEDULE OF ALTERNATES

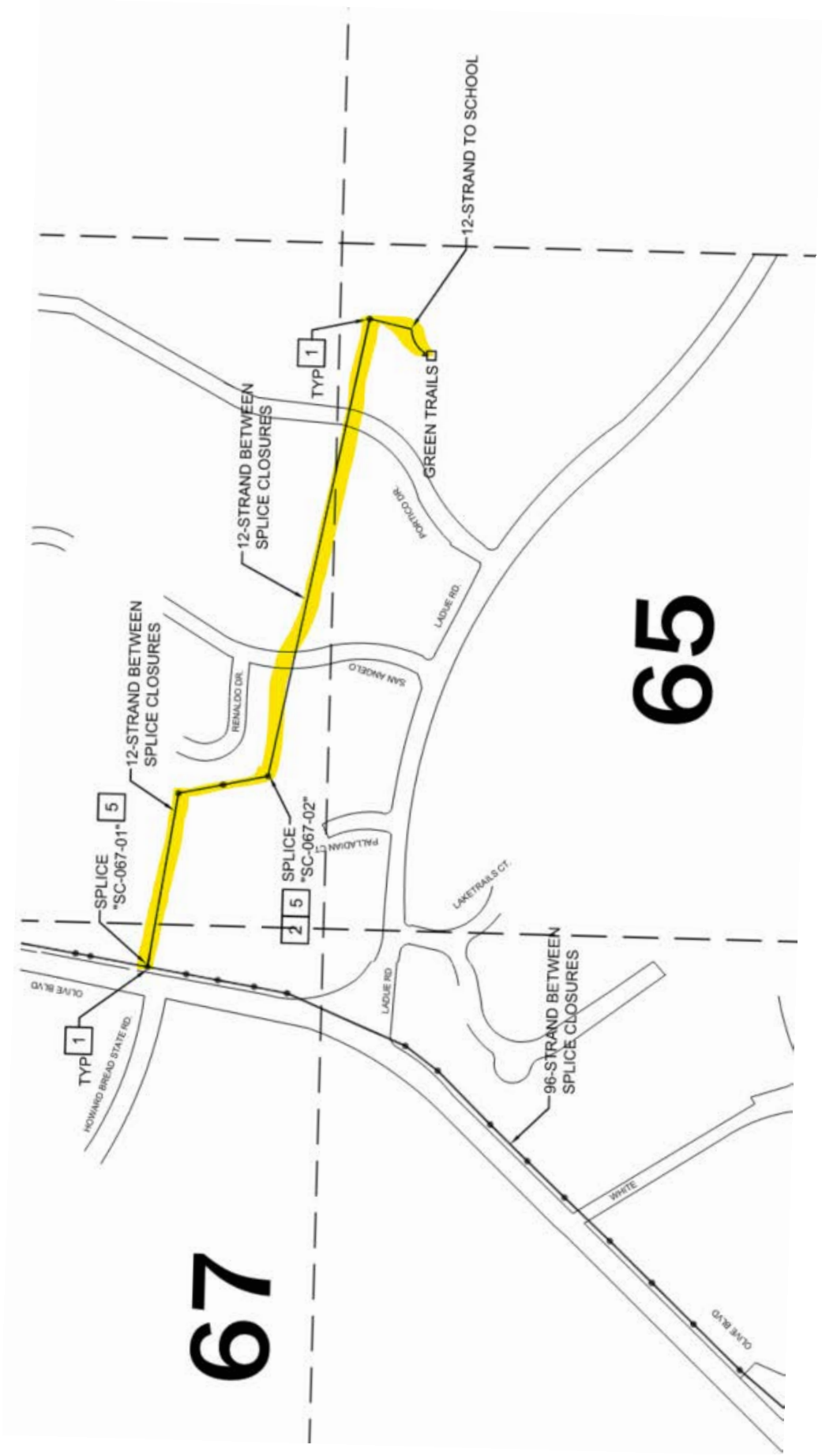
A. Alternate No. 1 - Eliminate Fiber Line from Splice "SC-067-01", located on Grid 67 near the intersection of Howard Bread State Rd and Olive Blvd, to Splice "SC-067-02" located on Grid 68 to Green Trails Elementary located on Grid 65:

1. Alternative Item: Sections 337102 and Drawing numbers T2.08 and T2.09 indicated on Grids 65, 67 and 68.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

END OF SECTION


12-STRAND TO SCHOOL
TYP 1
GREEN TRAILS
12-STRAND BETWEEN SPLICE CLOSURES
12-STRAND BETWEEN SPLICE CLOSURES
SPLICE "SC-067-01" 5
SPLICE "SC-067-02" 2 5
TYP 1
96-STRAND BETWEEN SPLICE CLOSURES
65
67
PONTICO DR.
LADUE RD.
SAN ANGELO
RENALDO DR.
PALLADIAN CT.
LAKETRAILS CT.
LADUE RD
OLIVE BLVD
HOWARD BREAD STATE RD.
WHITE
OLIVE BLVD

SECTION 321123
AGGREGATE BASE COURSES

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Aggregate base course.

1.02 RELATED REQUIREMENTS

A. Section 312200 - Grading: Preparation of site for base course and topsoil fill at areas adjacent to aggregate base course.

B. Section 312323 - Fill: Compacted fill under base course.

1.03 REFERENCE STANDARDS

A. ASTM C136/C136M - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.

B. ASTM D698 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).

C. ASTM D1556/D1556M - Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method.

D. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.

E. ASTM D4318 - Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.

F. ASTM D6938 - Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).

1.04 SUBMITTALS

A. See Section 013000 - Administrative Requirements for submittal procedures.

B. Materials Sources: Submit name of imported materials source.

C. Aggregate Composition Test Reports: Results of laboratory tests on proposed materials.

D. Compaction Density Test Reports by Owner's Testing Agency.

1.05 DELIVERY, STORAGE, AND HANDLING

A. When necessary, store materials on site in advance of need.

B. When aggregate materials need to be stored on site, locate where directed by Owner.

C. Aggregate Storage, General:
   1. Separate differing materials with dividers or stockpile separately to prevent intermixing.
   2. Prevent contamination.
   3. Protect stockpiles from erosion and deterioration of materials.

PART 2 PRODUCTS

2.01 MATERIALS

A. Aggregate Type A1: Coarse aggregate, conforming to County of St. Louis Department of Highways and Traffic standard specification section 1007 - Aggregate Base Material, Type 5.
   1. Graded in accordance with ASTM C 136, within the following limits:
      a. 1 inch sieve: 100 percent passing.
      b. 1/2 inch sieve: 90 to 60 percent passing.
      c. No. 4 sieve: 60 to 35 percent passing.
      d. No. 30 sieve: 35 to 10 percent passing.
      e. No. 200 sieve: 15 to 0 percent passing.
      f. The fraction passing the No. 40 sieve shall have a maximum plasticity index of 6.

2.02 SOURCE QUALITY CONTROL

A. See Section 014000 - Quality Requirements for general requirements for testing and analysis of aggregate materials.

B. Provide materials of each type from same source throughout the Work.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that survey bench marks and intended elevations for the work are as indicated.

B. Verify substrate has been inspected, gradients and elevations are correct, and is dry.

3.02 PREPARATION

A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.

B. Do not place aggregate on soft, muddy, or frozen surfaces.

3.03 INSTALLATION

A. Under Bituminous Concrete Paving:
   1. Place Aggregate Type A1 to a total compacted thickness as indicated on drawings.
   2. Compact to 95 percent of maximum dry density.

B. Under Portland Cement Concrete Paving:
   1. Place Aggregate Type A1 to a total compacted thickness as indicated on drawings.
   2. Compact to 95 percent of maximum dry density.

C. Place aggregate in maximum 6 inch layers and roller compact to specified density.

D. Level and contour surfaces to elevations and gradients indicated.

E. Add small quantities of fine aggregate to coarse aggregate as appropriate to assist compaction.

F. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.

G. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.04 TOLERANCES

A. Flatness: Maximum variation of 1/2 inch measured with 10 foot straight edge.

B. Scheduled Compacted Thickness: Within 1/4 inch.

C. Variation From Design Elevation: Within 1/2 inch.

3.05 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements for general requirements for field inspection and testing.

B. Compaction density testing will be performed on compacted aggregate base course in accordance with ASTM D1556, ASTM D2167, ASTM D3017, or ASTM D6938.

C. Results will be evaluated in relation to compaction curve determined by testing uncompacted material in accordance with ASTM D698 ("standard Proctor").

D. If tests indicate work does not meet specified requirements, remove work, replace and retest.

E. Frequency of Tests: 1 test for each lift for each 5 000 s.f. of area.

F. Proof roll compacted aggregate at surfaces that will be under slabs-on-grade and paving.

3.06 CLEANING

A. Remove unused stockpiled materials, leave area in a clean and neat condition. Grade stockpile area to prevent standing surface water.

END OF SECTION

SECTION 321216
ASPHALT PAVING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Double course bituminous concrete paving.

1.02 RELATED REQUIREMENTS

A. Section 312200 - Grading: Preparation of site for paving and base.

B. Section 312323 - Fill: Compacted subgrade for paving.

C. Section 321123 - Aggregate Base Courses: Aggregate base course.

D. Section 321313 - Concrete Paving: Concrete curbs.

1.03 REFERENCE STANDARDS

A. AI MS-2 - Asphalt Mix Design Methods.

B. AI MS-19 - Basic Asphalt Emulsion Manual.

C. ASTM D946 - Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction.

1.04 SUBMITTALS

A. Product Data: Submit product information and mix design to Owner.

B. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.05 QUALITY ASSURANCE

A. Perform Work in accordance with County of St. Louis Department of Highways and Traffic standards.

B. Mixing Plant: Complying with State of Missouri Highways standard.

C. Obtain materials from same source throughout.

1.06 FIELD CONDITIONS

A. Do not place asphalt when ambient air or base surface temperature is less than 40 degrees F, or surface is wet or frozen.

B. Place bitumen mixture when temperature is not more than 15 F degrees below bitumen supplier's bill of lading and not more than maximum specified temperature.

PART 2 PRODUCTS

2.01 MATERIALS

A. Crack Filler/Sealant: Sealant material shall be in accordance with County of St. Louis Department of Highways and Traffic standard specifications, Section 1057.5, Joint and Crack Sealer, Hot-Poured Elastic Type.

B. Pavement Repair Membrane: See Section 320117.

C. Tack Coat: Emulsified asphalt in accordance with County of St. Louis Department of Highways and Traffic standard specifications, Section 407 - Tack Coat.

2.02 ASPHALT PAVING MIXES

A. Use dry material to avoid foaming. Mix uniformly.

B. Type X Binder Course: In accordance with County of St. Louis Department of Highways and Traffic standard specifications, Section 405 - Bituminous Pavements and Base.

C. Type C Wearing Course: In accordance with County of St. Louis Department of Highways and Traffic standard specifications, Section 405 - Bituminous Pavements and Base.

D. Mix Temperature: Not less than 200 degrees F at time of placement.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that compacted subgrade is dry and ready to support paving and imposed loads.

B. Verify gradients and elevations of base are correct.

C. Verify handhole frames are installed in correct position and elevation.

D. Contractor shall contact the Owner to arrange an inspection of the crack repair by the Owner and Contractor prior to placing the tack coat and overlay.

3.02 AGGREGATE BASE COURSE

A. See Section 321123 - Aggregate Base Courses.

3.03 PREPARATION - CRACK REPAIR

A. Cracks 3/8 inch wide or less:
   1. Remove and dispose of all loose debris in crack.
   2. Place pavement repair membrane in accordance with requirements of Section 320117.
   3. Apply tack coat in preparation for single course overlay.

B. Cracks over 3/8 inch wide:
   1. Mill existing asphalt pavement along entire length of crack.
      a. Width 18 inches.
         1) Tolerance: Centered on crack within 6 inches +/-.
      b. Depth 2 inches.
         1) Tolerance: Within 1/4 inch +/-.
   2. Remove and dispose of all loose debris in crack and milled channel.
   3. Fill crack and milled channel with crack filler/sealant material to match finished grade of adjacent existing asphalt pavement.
   4. Place pavement repair membrane over each joint between the existing asphalt pavement and the milled channel filled with crack filler/sealant material in accordance with the requirements of Section 320117.
   5. Apply tack coat in preparation for single course overlay.

3.04 PREPARATION - TACK COAT

A. Apply tack coat in accordance with County of St. Louis Department of Highway and Traffic standard specifications, Section 407 - Tack Coat.

B. Apply tack coat to contact surfaces of existing asphalt cold joints, concrete curbs, and concrete curb and gutters at uniform rate of 0.05 galy/sq yd.

3.05 PLACING ASPHALT PAVEMENT - DOUBLE COURSE

A. Install Work in accordance with County of St. Louis Department of Highways and Traffice standards.

B. Place asphalt binder course to ____ inch compacted thickness.

C. Place asphalt wearing course within two hours of placing and compacting binder course.

D. Place asphalt wearing course to ____ inch compacted thickness.

E. Compact pavement by rolling to specified density. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.

F. Perform rolling with consecutive passes to achieve even and smooth finish, without roller marks.

3.06 TOLERANCES

A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.

B. Compacted Thickness: Within 1/4 inch of specified or indicated thickness.

C. Variation from True Elevation: Within 1/2 inch.

3.07 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for general requirements for quality control.

B. Provide field inspection and testing. Take samples and perform tests in accordance with AI MS-2.

3.08 PROTECTION

A. Immediately after placement, protect pavement from mechanical injury for 2 days or until surface temperature is less than 140 degrees F.

END OF SECTION

SECTION 321313
CONCRETE PAVING

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Concrete sidewalks, vertical curbs, gutters, and pads.

1.02 RELATED REQUIREMENTS

A. Section 312200 - Grading: Preparation of site for paving and base and preparation of subsoil at pavement perimeter for planting.

B. Section 321123: Aggregate base course.

1.03 REFERENCE STANDARDS

A. ACI 211.1 - Selecting Proportions for Normal-Density and High Density-Concrete - Guide.

B. ACI 301 - Specifications for Concrete Construction.

C. ACI 304R - Guide for Measuring, Mixing, Transporting, and Placing Concrete.

D. ACI 305R - Guide to Hot Weather Concreting.

E. ACI 306R - Guide to Cold Weather Concreting.

F. ASTM C33/C33M - Standard Specification for Concrete Aggregates.

G. ASTM C39/C39M - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.

H. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.

I. ASTM C150/C150M - Standard Specification for Portland Cement.

J. ASTM C173/C173M - Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.

K. ASTM C260/C260M - Standard Specification for Air-Entraining Admixtures for Concrete.

L. ASTM C618 - Standard Specification for Coal Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.

M. ASTM C685/C685M - Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing.

N. ASTM C 920 - Standard Specification for Elastomeric Joint Sealants.

O. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Asphalt Types).

1.04 QUALIFICATIONS

A. Manufacturer: Company specializing in manufacturing Products specified in this section with minimum three years documented experience.

B. Installer: Company specializing in performing work of this section with minimum three years documented experience.

1.05 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Submit proposed concrete mix design test reports.

C. Product Data: Provide data on joint filler, admixtures, and curing compound.

PART 2 PRODUCTS

2.01 FORM MATERIALS

A. Form Materials: Conform to ACI 301.

B. Joint Filler: Preformed; non-extruding bituminous type (ASTM D1751) or sponge rubber or cork (ASTM D1752).
   1. Thickness: 3/4 inch.

2.02 REINFORCEMENT

A. Steel Welded Wire Reinforcement: Plain type, ASTM A1064/A1064M; in flat sheets; galvanized.

2.03 CONCRETE MATERIALS

A. Obtain cementitious materials from same source throughout.

B. Cement: ASTM C150/C150M, Normal - Type I Portland cement, gray color.

C. Fine and Coarse Mix Aggregates: ASTM C33/C33M, Meramec sand only (lignite free).

D. Fly Ash: ASTM C618, Class C or F.

E. Calcined Pozzolan: ASTM C618, Class N.

F. Silica Fume: ACI 211.1.

G. Water: Clean, and not detrimental to concrete.

H. Air-Entraining Admixtures: ASTM C260/C260M.

2.04 ACCESSORIES

A. Joint Sealer: Self-leveling, one part polyurethane in accordance with ASTM C920, Type S, Grade P, Use T.
   1. Acceptable Product: Sonneborn Sonolastic SL1.
   2. Substitutions: See 016000 - Product Requirements.

B. Reinforcement Accessories:
   1. Chairs, Bolsters, Bar Supports, Sacers: Sized and shaped for adequate support of reinforcement during concrete placement.
   2. Provide stainless steel components for placement within 1-1/2 inches of weathering surfaces.

2.05 CONCRETE MIX DESIGN

A. Proportioning Normal Weight Concrete: Comply with ACI 211.1 recommendations.

B. Concrete Strength: Establish required average strength for concrete on the basis of field experience or trial mixtures, as specified in ACI 301.
   1. For trial mixtures method, employ independent testing agency acceptable to Architect for preparing and reporting proposed mix designs.

C. Admixtures: Reducing and Accelerating admixtures will be allowed at the discretion of the Architect and only after review and approval of product information submittal by Contractor. Add acceptable admixtures as recommended in ACI 211.1 and at rates recommended by manufacturer.

D. Concrete Properties:
   1. Compressive strength, when tested in accordance with ASTM C39/C39M at 28 days; 4,000 psi.
   2. Total Air Content: minimum 5 percent, determined in accordance with ASTM C 173/C 173M.
   3. Maximum Slump: 4 inches.
   4. Maximum Aggregate Size: 1 inch.

2.06 MIXING

A. On Project Site: Mix in drum type batch mixer, complying with ASTM C685/C685M. Mix each batch not less than 1-1/2 minutes and not more than 5 minutes.

B. Transit Mixers: Comply with ASTM C94/C94M.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify compacted granular base or existing asphalt surface is acceptable and ready to support paving and imposed loads.

B. Verify gradients and elevations of base are correct.

3.02 SUBBASE

A. See Section 321123 - Aggregate Base Courses for construction of base course for work of this Section.

3.03 PREPARATION

A. Moisten base to minimize absorption of water from fresh concrete.

B. Coat surfaces of manhole, handhole, catch basin, handhole, and handhole frames with oil to prevent bond with concrete pavement.

C. Notify Architect minimum 24 hours prior to commencement of concreting operations.

3.04 FORMING

A. Place and secure forms to correct location, dimension, profile, and gradient.

B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.

C. Place joint filler vertical in position, in straight lines. Secure to formwork during concrete placement.

3.05 REINFORCEMENT

A. Place reinforcement at midheight of slabs-on-grade. Utilize Chairs, Bolsters, Bar Suppirts, Spacers sized and shaped for adequate support of reinforcement during concrete placement.

B. Interrupt reinforcement at expansion joints.

3.06 COLD AND HOT WEATHER CONCRETING

A. Follow recommendations of ACI 305R when concreting during hot weather.

B. Follow recommendations of ACI 306R when concreting during cold weather.

C. Do not place concrete when base surface temperature is less than 40 degrees F, or surface is wet or frozen.

3.07 PLACING CONCRETE

A. Place concrete in accordance with ACI 304R.

B. Do not place concrete when base surface is wet.

C. Ensure reinforcement, inserts, embedded parts, formed joints are not disturbed during concrete placement.

D. Place concrete continuously over the full width of the panel and between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.

E. Place concrete to pattern indicated.

3.08 JOINTS

A. Align curb, gutter, and sidewalk joints.

B. Place 3/4 inch wide expansion joints at maximum of 20 foot intervals and to separate paving from vertical surfaces and other components and in pattern indicated.
   1. Form joints with joint filler extending from bottom of pavement to within 1/2 inch of finished surface.
   2. Secure to resist movement by wet concrete.

C. Provide sawn joints.
   1. At maximum 5 feet intervals on sidewalks and in pattern indicated.

2. At pattern indicated on paved areas other than sidewalks.
3. Between sidewalks and curbs.
4. Between curbs and pavement.

D. Provide keyed joints as indicated.

E. Saw cut contraction joints 3/16 inch wide at an optimum time after finishing. Cut 1/3 into depth of slab.

3.09 FINISHING

A. Area Paving: Light broom, texture perpendicular to pavement direction.

B. Sidewalk Paving: Light broom, texture perpendicular to direction of travel with troweled and radiused edge 1/4 inch radius.

C. Curbs and Gutters: Light broom, texture parallel to pavement direction.

3.10 JOINT SEALING

A. Place Joint Sealer after a minimum of 28 days or in accordance with manufacturer's instructions over all joints containing Joint Filler.

3.11 TOLERANCES

A. Maximum Variation of Surface Flatness: 1/4 inch in 10 ft.

B. Maximum Variation From True Position: 1/4 inch.

3.12 FIELD QUALITY CONTROL

A. An independent testing agency will perform field quality control tests, as specified in Section 014000 - Quality Requirements.
1. Provide free access to concrete operations at project site and cooperate with appointed firm.
2. Tests of concrete and concrete materials may be performed at any time to ensure compliance with specified requirements.

B. Compressive Strength Tests: ASTM C39/C39M; for each test, mold and cure three concrete test cylinders. Obtain test samples for every 100 cu yd or less of each class of concrete placed.
1. Take one additional test cylinder during cold weather concreting, cured on job site under same conditions as concrete it represents.
2. Perform one slump test for each set of test cylinders taken.

C. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.13 PROTECTION

A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.

B. Do not permit pedestrian or vehicular traffic over pavement for 7 days minimum after finishing.

END OF SECTION