Charlie A. Dooley **County Executive**



Sheryl L. Hodges, D.E., P.E., L.P.G. Director

PUBLIC WORKS

May 16, 2014

ADDENDUM NO. 2

Notice to All Persons and Firms Proposing to Submit a Bid or Furnish Materials for Shrewsbury Avenue -- Lansdowne Avenue Infrastructure St. Louis County Project No. AR-1388 Federal Project No. STP-4901(635)

The construction contract for this project has been revised as follows:

No. 1

Delete Contract Book Section 1100.70.8, Transverse and Longitudinal Joint Pavement Repair (6-Foot Minimum Width) With Special Concrete Types and Construction Procedures

No. 2

Insert New Contract Book Section 1100.70.8, Concrete Pavement Repair (18 Pages total)

No. 3 Delete Contract Book Page 252 of 264

No. 4 Insert New Contract Book Page 252A of 264

No. 5 Delete Contract Book Page 253 of 264

No. 6 Insert New Contract Book Page 253A of 264

No. 7 Delete Contract Book Page 254 of 264

No. 8 Insert New Contract Book Page 254A of 264

No. 9 Delete Plan Sheet 2 of 39

No. 10 Insert New Sheet 2A of 39 <u>No. 11</u> Delete Plan Sheet 3 of 39

No. 12 Insert New Sheet 3A of 39

<u>No. 13</u> Delete Plan Sheet 4 of 39

No. 14 Insert New Sheet 4A of 39

<u>No. 15</u> Delete Plan Sheet 5 of 39

No. 16 Insert New Sheet 5A of 39

<u>No. 17</u> Delete Plan Sheet 6 of 39

No. 18 Insert New Sheet 6A of 39

<u>No. 19</u> Delete Plan Sheet 7 of 39

<u>No. 20</u> Insert New Sheet 7A of 39

ATTENTION BIDDERS: CHECK THE ADDENDUM ACKNOWLEDGEMENT IN THE BID DOCUMENTS AND COMPLETE APPROPRIATELY.

Namile Hand

Daniel R. Naunheim, P.E. Division Manager, Design

DRN/DJF/jlh

Attachments: Contract Book Section 1100.70.8, Concrete Pavement Repair (18 Pages); Contract Book Pages 252A, 253A, and 254A of 264 Plan Sheets 2A, 3A, 4A, 5A, 6A, and 7A of 39 Addendum Receipt Acknowledgement (**Please sign and return.**)

1100.70.8 CONCRETE PAVEMENT REPAIR

Delete Section 613 and substitute the following:

613.1 Description

613.1.1 Full depth pavement, joint and base repair shall consist of removing specified areas of existing variable thickness of non-reinforced Portland Cement Concrete and replacing with reinforced or non-reinforced Portland Cement Concrete as specified in the contract documents.

613.1.2 Pavement repair greater than 15 feet in length shall be reinforced with macro-synthetic fiber material specified herein.

613.1.3 Pavement repair thickness may be increased by up to 2 inches at no additional cost to the county, to meet the required minimum opening compressive strength.

613.1.4 Very Early Strength repairs shall be opened to traffic in 4 to 6 hours. High Early Strength repairs shall be opened to traffic in 24 to 48 hours. Mix designs are included as a suggestion and not as a requirement. Pavement repair that does not meet the required opening time due to not meeting the minimum specified compressive strengths as specified in Sec 613.3.27.2 will receive a pay adjustment.

613.1.5 Due to high volumes of traffic on most of the roadways where work is to be performed, bid items and quantities for fast setting concrete have been included to allow the Engineer and Contractor some flexibility in dealing with lane closures, traffic control and access to streets and driveways. The Engineer shall have final approval over the type of concrete to be used. Payment as approved by the Engineer shall be made under the appropriate bid items.

613.2 Materials

All materials, unless specified otherwise in this specification, shall conform to Division 1000, Materials Details, and specifically as follows:

| Item | Section |
|--------------------------------------|---------|
| Aggregates for Concrete | 1005 |
| Bituminous Materials | 1015 |
| Silica Fume (Microsilica) | 1016 |
| Ground Granulated Blast Furnace Slag | 1017 |
| Fly Ash for Concrete | 1018 |
| Cement | 1019 |
| Reinforcing Steel for Concrete | 1036 |
| Epoxy Resin Material | 1039 |
| Concrete Admixtures | 1054 |
| Concrete Curing Material | 1055 |
| Material for Joints | 1057 |

613.3 Construction Requirements

613.3.1 Pavement **Removal Locations.** Approximate locations and areas of pavement sections to be removed will be shown on the plans. Specific locations and areas of pavement repair removal shall be as specified by the Engineer.

613.3.2 **Pavement Removal and Base Replacement.** Specified areas of full depth pavement repair shall be removed in accordance with the applicable requirements of Section 202.30 except that the saw-cut shall be full-depth for pavement thickness of 7 inches or greater. A diamond saw shall be used for perimeter cuts, and saw-cuts shall not be made more than one calendar day before concrete slab removal. Saw cut such that traffic will not dislodge any pieces or segments. A rock saw may be used to make this cut with prior approval of the Engineer. Any damage caused to the pavement due to pre-sawing shall be repaired by the contractor at the contractor's expense. Asphalt backfill and maintenance of saw cut will be at no cost to the County.

613.3.2.1 **Pavement Repair Breaking and Removal.** Inside the saw cut outline, do not impact the surface within 18 inches of the pavement to remain in place. The full depth of pavement shall be removed from the middle-portion of the slab toward the adjacent concrete to be used-in-place, with a minimum disturbance of sound base. For pavement repair less than 7 inches in thickness and when removing concrete within six (6) inches of a sawed or formed joint, only use a 15-pound jackhammer to remove excess concrete.

613.3.2.2 **Pavement Repair Base Removal and Compaction.** Any aggregate base disturbed by the Contractor shall be recompacted or removed and backfilled with Portland Cement Concrete as an integral part of the repair. Unstable base aggregate shall be removed and replaced in accordance with Section 304, as directed by the

Engineer. Subgrade compaction shall be performed in areas of unstable subgrade in accordance with Section 210, if directed by the Engineer. In areas of unstable subgrade, the unstable subgrade may be removed and replaced with Type 5 aggregate base material in accordance with Section 304 at the Contractor's option. Compaction shall be in accordance with Section 304 and to the satisfaction of the Engineer.

613.3.2.3 **Base Repair Forming.** Forming for concrete pavement repair shall be in accordance with Section 502 of the standard specifications.

613.3.2.4 **Undercut Spalling.** When concrete removal operations result in deterioration of the bottom slab of sound concrete surrounding the repair area the Contractor shall saw back into the adjacent slab until sound concrete is encountered.

613.3.2.5 **Removal of Excess Water.** The repair area shall be dry, free from standing water. The Contractor shall pump water from the repair area or drain it through a trench cut into the shoulder. The base shall be recompacted in accordance with Sec 304.3.5.2 and to the satisfaction of the Engineer.

613.3.3 **Transverse Joint Reinforcement.** Transverse joints shall be provided in accordance with Sec 505.2.4.

613.3.3.1 **Dowel Bar Installation.** Dowel bar diameter shall be based on repair thickness. Horizontal displacement is defined as difference in the actual dowel bar location from its theoretical position as detailed in the standard details. The maximum allowable horizontal displacement is 2 inches. The dowel holes shall be drilled on 12" centers, located vertically at mid-depth $\pm \frac{1}{2}$ inch of the slab drilled, drilled with an automatic gang-mounted dowel drilling rig, referenced off the slab surface. Single, handheld drills are not permitted because of the likelihood of misalignment. Standard pneumatic and hydraulic percussion drills are acceptable for drilling dowel bar holes. The drilling rig shall be able to maintain proper bar alignment, drilled to required diameter + 1/8 inch, and to a depth approximately $\frac{1}{2}$ the length of the dowel bar. Dowel bars shall have a typical spacing of 6 inches from any longitudinal joint or edge of pavement. The holes shall be blown clean and allowed to dry.

613.3.3.2 **Dowel Bar Epoxy Anchoring.** The holes shall be injected with an epoxy bonding agent meeting the requirements of Section 1039.3 of the current St. Louis County Standard Specifications for Highway Construction. If the epoxy bonding agent is either in bulk or cartridge form, it shall be thoroughly mixed in the proper ratio by an automatic mixing unit prior to injection into the dowel holes. The automatic mixing unit shall be an integral part of the injection device. The bonding agent shall be injected into the dowel hole by inserting the injection device to the back of the hole and slowly withdrawing the device while dispensing sufficient material to completely fill the void around the dowel when the dowel is inserted.

613.3.3.3 **Dowel Bar Insertion.** Prior to inserting the dowel into the hole, a thin plastic disk, manufactured to slip tightly over the dowel, shall be placed over the dowel at approximately midpoint to prevent the bonding agent from flowing from the hole during placement of the dowel and to create an effective face at the entrance of the dowel hole. The dowel shall be inserted into the hole with a twisting motion so the material in the back of the hole is forced up and around the dowel. The dowel shall be placed parallel to the surface and the centerline of the travel way and shall not vary more than ¼ inch in alignment. Dowels shall be firmly seated prior to placing concrete.

613.3.3.3.1 **Dowel Bar Alignment Tolerance.** Dowel bar(s) that vary more than 1/4 inch per 12 inches of bar in horizontal skew or vertical tilt alignment on more than three bars shall be cause for removal of the dowels, re-sawing the pavement repair boundaries beyond the embedded bar, removing the concrete and re-installing the dowel bars for the full length of the repair joint. No additional compensation will be made for removal and replacement of dowels and concrete pavement and other incidentals associated with their replacement.

613.3.4 Longitudinal Joint Reinforcement Installation. Tie bar size shall be based on repair thickness. The 30" long steel epoxy coated No. 5 or No. 6 round deformed dowel bar, in accordance with Sec 1057.4, shall have holes drilled on 30-inch centers that are located vertically at mid-depth ± ½ inch of the slab drilled, 1/8 inch in diameter larger than the actual bar diameter required, to a depth approximately ½ the length of the tie-bar drilled with an automatic gang-mounted dowel drilling rig, referenced off the slab surface. Single, hand-held drills are not permitted because of the likelihood of misalignment. Standard pneumatic and hydraulic percussion drills are acceptable for drilling tie-bar holes. Tie bars shall have a typical spacing of 15 inches from any transverse joint or edge of pavement. Horizontal displacement is defined as difference in the actual dowel bar location from its theoretical position as detailed in the standard details. The maximum allowable horizontal displacement is 2 inches. The holes shall be blown clean and allowed to dry.

613.3.4.1 **Tie Bar Epoxy Anchoring.** The holes shall be injected with an epoxy bonding agent meeting the requirements of Section 1039.3 of the current St. Louis County Standard Specifications for Highway Construction. A standard keyway section shall be provided for pavement repair depths 7 inches or greater wherever new pavement widening is to abut a full depth pavement repair section.

613.3.4.2 **Tie Bar Alignment Tolerance.** Tie bar(s) that vary more than ¼ inch per 12 inches of bar in horizontal skew or vertical tilt alignment on more than three bars shall be cause for removal of the bars, re-sawing the pavement repair boundaries beyond the embedded bar, removing the concrete and re-installing the dowel bars for the full length of the repair joint. No additional compensation will be made for removal and replacement of dowels and concrete pavement and other incidentals associated with their replacement.

613.3.5 **Macro-Synthetic Fiber Reinforcement.** When pavement repairs require reinforcement macro-synthetic fibers shall be used. Fibers shall meet the minimum requirements in accordance with Sec 505.2.3. Fiber manufacturer, brand and weight per cubic yard shall be included in the concrete mix design and on concrete delivery ticket. The concrete producer-supplier is required to obtain and submit the following macro-synthetic fiber information for review:

- Specific product brand name;
- Independently performed test results (include minimum average residual strength at dosage rate specified);
- Material Safety Data Sheet;
- Technical Data Sheet;
- Contact person's name, title, address, email address, and phone number;

- A letter stating the subject material will not be changed without prior written notification to the county.

613.3.5.1 **Macro-Synthetic Approved Sources.** The following sources are considered approved for use as macro-synthetic fiber for concrete reinforcement at a rate of 5 pounds per cubic yard for pavement repair:

| Source | Fiber Trade Name |
|--|----------------------------|
| BASF Construction Chemical-Admixture Systems | MasterFiber™ MAC 100 |
| Euclid Chemical Company | TUF-STRAND SF |
| Forta Corporation | Fort A-Ferro® Fiber |
| Fabpro | Performax |
| General Resources Technology, Inc. | Advantage Structural Fiber |
| Propex Concrete Systems | Novomesh 950 |
| | Fibermesh 650 |
| PSI Packaging, Inc. | Max Ten |
| W.R. Grace & Company | Strux 90/40 |

Suggested Macro Fiber Material by Source and Trade Name

613.3.5.2 **Macro-Synthetic Fiber Storage, and Handling.** Macro-synthetic fiber blend material shall be delivered, stored, handled, and mixed in accordance with Sec 505.2.3.1.

613.3.6 **Repair Removal and Waste Disposal.** Repairs shall be made to only one lane at a time. The removed concrete and any excavated subgrade material shall be disposed of at a location furnished by the Contractor or at locations on the right-of-way approved by the Engineer. If the material is disposed of outside the right-of-way, an acceptable written agreement executed with the property owner on whose property the material is placed shall be submitted by the Contractor.

613.3.7 **Crack Relief.** Crack relief is required at all locations where the repair is intersected by a full-depth pavement crack.

613.3.7.1 If the crack is located further than 6 feet from an established joint, an additional dowel basket assembly shall be installed and the pavement appropriately jointed.

613.3.7.2 If the crack is located 6 feet or less from an established joint omit the tie bars from that section and establish crack relief by installing and securing to the slab face a 1/4 inch thick by 3 inch wide (minimum) commercial quality polyethylene, flexible foam expansion material across the crack prior to concrete placement. Extend the isolation joint material from flush with the top of pavement repair to the base of the pavement with the full-depth crack. Maintain the isolation joint material in a vertical position throughout the entire thickness of the repair.

613.3.8 **Early Opening to Traffic Concrete Mix Design.** The contractor shall provide a trial mix design with materials proportioned so that the slump, entrained air content, workability, minimum compressive strength and minimum opening times are achieved. All mixes shall have fine aggregate proportioned at a minimum amount of 35 percent of the total aggregate volume.

The Contractor shall submit all mix design(s) for review and approval in accordance with Sec 501.

613.3.8.1 Mix designs shall be prepared by personnel experienced in the use of ASTM C 94, ASTM C 192, ACI 211.5R-01, ACI 301, and ACI 318 Chapter 5.

613.3.8.2 The contractor shall submit to the Engineer the following for review and approval no less than 14 days in advance of pre-production trial batch:

- **Mix Design.** Strength type, Pavement Repair Class, opening time, minimum opening compressive strength, sources, grade or type, and volumetric properties of the proposed concrete-mix materials (water, cement, coarse aggregate, fine aggregate, macro-fiber and admixture(s) (brands and dosages), and production water/cement ratio for 1 cubic yard of concrete at the specified target air entrainment. The mix should be developed that uses the minimum amount of cementitiuos materials to achieve performance requirements.
- **Special Requirements:** A Polycarboxylate-based HRWR (ASTM C494 Type F) is required for all mix designs. For Very Early Strength, at least 2 gallons of nonchloride accelerator (NCA) is required per cubic yard. For all mix designs, when the forecasted low air temperature during placement through the curing period to achievement of the minimum required strength is at or below 45 F, a minimum dosage of 2 gallons per cubic yard of calcium nitrite NCA with calcium chloride accelerator (up to 1 gallon of per cubic yard) is required.
- **Curing Material Plan.** The plan shall include moisture and thermal materials used to cure, cover and weight the cover materials so when placed and weighted that they remain in contact with the pavement surfaces and edges, providing an airtight enclosure during moisture and thermal curing period.

613.3.8.3 The contractor is responsible for complying with opening times, specified slump, plastic air content and minimum compressive strengths specified. The concrete for standard joint repair will be composed of materials, proportioning, air-entraining, mixing, slump, and transporting shall be in accordance with Sections 501 and 502, as applicable to concrete pavement, or as specified in this provision. Changes in the source of materials or concrete-mix proportions shall not be made without written authorization of the Engineer. Supplementary cementitiuos materials may be use, but are not required. Dosage of admixtures shall be determined by the manufacturer in accordance with ambient conditions expected at the time of placement. Admixture dosage shall be adjusted to achieve, slump, entrained air content, temperature and compressive strength requirements within the specified opening time. The admixture dosage shall not permit the segregation of aggregate at the time of concrete placement. Addition of non-chloride calcium nitrite accelerating or Type F or G polycarboxylate high-range water-reducing admixtures to increase slump after the concrete is delivered, but not discharged, is allowed only once. Failure to achieve the minimum air entrainment, concrete temperature, slump at the time of placement and compressive strength within the early opening time specified shall be cause for application of penalties or rejection of the mix design and the concrete placed.

613.3.8.4 Water Reduction and Accelerator Requirements. The County does not warranty the performance of the following mix designs as admixture dosages are

suggested and their amount can vary with cement and admixture manufacturer, ambient temperature, haul distance and batching sequence. It is required that optimum mix trials be made before the start of job site pours. This will allow the ready-mix concrete producer to determine the proper batching sequence and the required dosage of other admixtures needed to deliver the specified concrete mix to the job site. Type F or G Polycarboxylate-based High Range Water Reducer (HRWR) is required to be added at the manufacturing plant. Calcium chloride or Non-Chloride calcium nitrite Accelerator (NCA) is recommended to be added at the job the site.

613.3.8.5 When more than 3 gallons of NCA are used, the contractor may substitute up to 1 gallon of calcium nitrite NCA with 1 gallon of calcium chloride accelerator per cubic yard.

613.3.8.6 Trial Slabs. Before starting slab replacement work, the contractor shall complete a minimum of one (1) trial slab for each mix design, specified herein, as per the pay item in the contract documents. If the specified mix design fails to meet specification requirements, the contractor shall submit alternate mix design(s) using adjusted batch weights of the materials and admixtures specified. Trial slab(s) must be a minimum of 10 by 15 feet. The trial slab thickness must be at least 8 inches. The contractor shall produce a 4 ± 1 cubic yard pre-production trial batch at a non-critical location, at an on-site location selected by the Contractor, and agreed upon by the Engineer. The trial slabs shall be produced at approximately the same season and ambient temperature conditions as those anticipated during production. The trial slab concrete shall be manufactured, transported, constructed, finished, cured, and tested with the materials, tools, equipment, personnel, and methods to be used in completing concrete pavement repair. The Contractor shall provide the Engineer a 7-day minimum advance notification of trial batch production. The Contractor shall produce, transport, place, finish, moist cure and thermally cure the trial batch in the presence of the Engineer.

613.3.8.6.1 **Contingent Item.** Payment for trial slab, reinforced or nonreinforced, shall be made at the contract price for concrete pavement, joint repair or base (Non-reinforced) for the thickness placed. If no concrete pavement pay item exists, payment for the trial slab will be made at \$75.00 per square yard.

613.3.8.7 **Concrete Placement and Workability.** Mobile volumetric mixers are not permitted. The maximum time permitted from the end of mixing to the completion of concrete discharge shall be twenty (20) minutes. All concrete remaining in the drum after this time shall be rejected and removed from the work site. No cold joints are allowed.

613.3.8.8 **Trial Slab Performance.** The trial slab(s) shall demonstrate that the contractor is capable of producing slab repair in conformance with these specifications. The contractor will be required to produce additional trial batches, at their expense, if the initial trail batch fails to conform to these specifications.

613.3.9 **Concrete Maturity Testing.** The contractor shall be required to provide maturity loggers and assist in the development, maintenance and verification of repair's strength-maturity relationship in accordance with County Standard Specification Section 507 Strength of Concrete Using the Maturity Method, when specified or allowed. When maturity testing is required, no trial slab will commence without contractor supplied maturity loggers. The maturity curve shall be

submitted to the Contractor by the Engineer after completion of the approved trial slab and at least 4 days in advance of production pavement repair.

613.3.10 **High Early Strength (24 - 48 Opening Time).** For pavement repair to be made and opened to traffic between 24 and 48 hours after placement, the Type I/II Portland cement, Polycarboxylate-based HRWR, water/cement ratio and slump suggested requirements are as follows:

| 7.50 Sack Type I/I Cement Trial Mix Design | | |
|---|--------------|--|
| Property | Amount | |
| Type I/II cement, lbs | 705 | |
| Coarse Aggregate (Class D), lbs | 1725 | |
| Fine Aggregate (Class A), lbs | 1155 | |
| Water (Maximum Allowable), lbs (gals) | 268 (32.2) | |
| ASTM C 260 Air Entraining Agent | Dosage to | |
| | achieve 5.5% | |
| Polycarboxylate-based HRWR (ASTM C494 Type F), ounces | 106 | |
| per cubic yard ¹ | | |
| ¹ EXP 950, Sika Sikament 610, Euclid Eucon SPC, GRT EVO 2500 or an approved equal shall be | | |
| added at the manufacturing plant. Additional HRWR may be added once before placement to | | |
| increase slump | | |
| Type IL cement may be substituted for Type I/II cement | | |

High Early Strength (24 – 48 Hour Opening) 7.50 sack Type I/II Cement Trial Mix Design

613.3.10.1 The allowable Type I/II cement content shall not be less than 700 pounds or exceed 850 pounds per cubic yard. Water/cementitiuos ratio shall be maintained at \pm 0.02 from the target established on the mix design and shall be within the minimum-maximum range when the tolerance is applied. All concrete shall have the additional properties:

Required High Early Strength (24-48 Hour Early Opening) Mix Properties at the Time of Placement

| Property | Minimum | Maximum |
|--------------------------------------|---------|---------|
| Water / Cement Ratio | 0.30 | 0.40 |
| Temperature at time of placement, °F | 83 | - |
| Slump at the time of placement, inch | 4 | 6 |
| Entrained Air, percent | 4.0 | 7.0 |

613.3.10.2 No addition of water to the concrete shall be permitted after addition of the HRWR.

613.3.10.3 **Applicable Pavement Repair Pay Item Descriptions.** The accepted quantity for High Early Strength pavement or joint repair, not including trial slab(s), will be paid for at the contract unit price for each of the pay items included in the contract.

613.3.10.3.1 Joint Repair (High Early Strength), Item No. 613.10.17

613.3.10.3.2 Joint Repair (High Early Strength), Item No. 613.10.90

613.3.10.3.3 **Contingent Item.** Additional payment for Portland cement concrete pavement repair in excess of 8 inches thick shall be made at the rate of 10% of the contract unit price for the pavement, joint or base repair item specified for each additional inch in excess of 8" per S.Y. as a contingent item. (Ex.: Unit Price = \$40.00, Thickness = 10". Additional payment: 10%/inch x \$40.00 x (10-8 inches) = \$8.00 per S.Y.)

613.3.11 Very Early Strength (4 - 6 Hour Opening Time). For the repair to be made and opened to traffic in 4 to 6 hours after placement, the Type I/II or III Portland cement, Polycarboxylate-based high-range water reducer (HRWR), water/cement ratio and slump requirements shall be option I (Type I/II cement) or 2 (Type III cement). Water/cementitiuos ratio shall be maintained at \pm 0.02 from the target established on the mix design and shall be within the minimum-maximum range when the tolerance is applied.

613.3.11.1 Option I. The allowable Type I/II cement content shall not be less than 850 pounds or exceed 950 pounds per cubic yard.

| 9.57 Sack Type Mi Cement Thai Mix Design | | |
|--|--------------|--|
| Material | Amount | |
| Type I/II Cement, lbs | 900 | |
| Coarse Aggregate (Class D), lbs | 1630 | |
| Fine Aggregate (Class A), lbs | 1080 | |
| Maximum Batch Water, lbs (gal) | 342(41) | |
| ASTM C 260 Air Entraining Agent | Dosage to | |
| | achieve 5.5% | |
| Polycarboxylate-based HRWR | 59 | |
| (ASTM C494 Type F), ounces | | |
| Calcium Nitrite (30% min.) Non-Chloride Accelerator | 980 (7.65) | |
| (NCA) –ASTM C 494 Type C, ounces (gal) | | |
| ¹ Aggregate Weights at SSD condition | | |
| Type IL cement may be substituted for Type I/II cement | | |

Very Early Strength (4 – 6 Hour Opening) 9.57 sack Type I/II Cement Trial Mix Design

613.3.11.2 Option II. The allowable Type III cement content shall not be less than 650 pounds or exceed 800 pounds per cubic yard.

| 7.00 sack Type III Cement Trial Mix Design | | |
|--|--------|--|
| Material | Amount | |
| Type III Cement, lbs | 658 | |
| Coarse Aggregate (Class D), lbs ¹ | 1795 | |
| Fine Aggregate (Class A), lbs ¹ | 1170 | |

Very Early Strength (4 – 6 Hour Opening) 7.00 sack Type III Cement Trial Mix Design

| Very Early Strength (4 – 6 Hour Opening) | |
|--|--|
| 7.00 sack Type III Cement Trial Mix Design | |

| Material | Amount |
|---|------------------------|
| Maximum Batch Water, lbs (gal) | 250 (30) |
| ASTM C 260 Air Entraining Agent | Dosage to achieve 5.5% |
| Polycarboxylate-based HRWR (ASTM C494 Type F), ounces | 100 |
| Calcium Nitrite (30% min.) NCA ASTM C 494 Type C, ounces (6.6 gal) | 842(6.6) |
| ¹ Aggregate Weights at SSD condition | |

613.3.11.2 No addition of water to the concrete shall be permitted after addition of the HRWR. All 4-6 hour very early opening concrete shall have the additional properties:

| Required Very Early Strength (4 - 6 Hour Opening) |
|---|
| Mix Properties at the Time of Placement |

| Property | Minimum | Maximum |
|--------------------------------------|---------|---------|
| Water / Cement Ratio | 0.30 | 0.40 |
| Temperature at time of placement, °F | 88 | - |
| Slump at the time of placement, inch | 4 | 6 |
| Entrained Air, percent | 4.0 | 7.0 |

613.3.11.3 **Applicable Pavement Repair Pay Item Descriptions.** The accepted quantity for Very Early Strength pavement repair, not including trial slab(s), will be paid for at the contract unit price for each of the pay items included in the contract.

613.3.11.3.1 Joint Repair (Very Early Strength), Item No. 613.10.90

613.3.11.3.2 Concrete Base (8" Non-Reinforced), Very Early Strength, Item No. 309-10.08

613.3.11.3.3 **Contingent Item.** Additional payment for Portland cement concrete pavement repair in excess of 8 inches thick shall be made at the rate of 10 percent of the contract unit price for the pavement repair item specified for each additional inch in excess of 8" per S.Y. as a contingent item. (Ex.: Unit Price = 40.00, Thickness = 10". Additional payment: 10 percent / inch x $40.00 \times (10.8 \text{ inches}) = 8.00 \text{ per S.Y.}$)

613.3.12 **Concrete Mixing and Placement Limitations.** Weather Concrete Mixing and placement limitations shall be in accordance with Section 502.4.1.

613.3.13 **Entrained Air.** The quantity of air by volume entrained in early opening strength concrete shall be 5.5 ± 1.5 percent as determined in accordance with County Test Method QA-3 Air Content of Freshly Mixed Concrete by the Pressure Method.

613.3.14 **Consolidation.** Internal concrete vibrator(s) shall be supplied in accordance with Sec 502.3.7. Concrete shall be consolidated in accordance with Sec 502.4.7.3. Vibrators and equipment to operate vibrators shall be on-site and functional prior to arrival of concrete on site. No concrete shall be placed without operational vibrators.

613.3.15 If the concrete pavement has been resurfaced and where no additional structure is to be added to the existing overlay, or where the existing bituminous overlay is to be removed by milling, the repaired area shall be filled to the surface of the existing bituminous overlay with Portland cement concrete.

613.3.16 If the concrete pavement has been resurfaced and additional lifts are to be added over the existing overlay, the repair area shall be filled with Portland cement concrete to the surface of the underlying concrete pavement, and the remaining area shall be filled with approved hotmix asphalt to the existing bituminous overlay surface. The hot-mix asphalt shall be placed in accordance with the specifications for that mix.

613.3.17 When the concrete pavement requires all milled areas to be resurfaced in the same work day prior to opening the pavement to traffic, pavement repairs identified after milling will be marked for future repair, and the area shall be resurfaced as planned for that work day. No additional lifts of hot-mix asphalt will be allowed until the marked pavement is repaired. The pavement repair shall be performed in accordance with Sec 613.

613.3.18 **Strike-off.** Delete Section 502.3.6 and replace with the following: The use of a vibrating screed parallel to the pavement's centerline is required for full depth repairs over 10 feet in length. For repairs 10 feet or less in length use a 10-foot straight edge, pulling the tool blade parallel to the longitudinal joint.

613.3.19 **Concrete Pavement Repair Smoothness.** All repaired areas shall be finished to provide a smooth ride and to the satisfaction of the Engineer. Prior to surface texturing, repaired areas shall be checked with a straightedge in accordance with Sec 502.4.7.7 if required by the Engineer. When straightedged, the surface of the repaired area shall not vary more than 1/8" per 10' from a straight line between the surface of the existing pavement on each side of the repaired area, regardless if the repair is to be resurfaced or not. When the tolerance is not met, plastic concrete shall be added or removed from the repair until the surface tolerance is met.

613.3.20 **Surface Texturing.** No concrete shall be placed without proper texturing equipment on the job. The repair texture shall be similar to that on the surrounding pavement. For concrete not to be overlaid and placed on Arterial roads, concrete shall be finished with a wire comb in accordance with Sec 502.3.8.3. For all other conditions, concrete shall be finished with a burlap fabric drag in accordance with Sec 502.3.8.1.

613.3.21 **Pavement Repair Date Stamping.** Using metal dies in accordance with Sec 502.3.10.2 the Contractor shall stamp the pour date into the repair that is not to be overlaid after surface texturing, but before curing is applied. The placement date (MM-DD-YY) of each pavement repair shall be stamped in the plastic concrete. The stamped date shall be located near the repair's transverse and longitudinal joint on a troweled surface not closer than 1 foot to edge of pavement repair and face outward so as to be read from the near shoulder. On roadways with narrow shoulders or curbs, the pour date shall be oriented (parallel with the transverse joint) so that they can be read from the roadway in the direction of traffic flow.

613.3.22 **Rain Protection.** Rain protection shall be in accordance with Secs 502.3.11 and 502.10.1. No concrete shall be placed without adequate type and quantity of rain protection material on the job.

613.3.23 **Moisture and Temperature Retention Curing.** No concrete shall be placed without proper curing material on the job. Immediately after finishing and as soon as marring of the concrete will not occur, the entire surface of the newly placed concrete shall be cured with one or more of the following methods:

613.3.23.1 **Moisture Retention Curing.** Moisture retention curing material is required If temperature retention material is not certified to meet the water retention requirements in this section. Material shall be on repair site prior to concrete placement. Immediately after finishing and as soon as marring of the concrete will not occur, typically within 30 minutes after placement, the entire surface of the newly placed concrete shall be cured with one of the five following moisture retention materials:

613.3.23.1.1 **Polyethylene Sheeting.** Polyethylene sheeting for moist curing Portland cement concrete shall have a minimum nominal thickness of 4.0 mils and be white opaque (Hot Weather), clear or black (Cold Weather). Polyethylene sheeting physical requirements shall be in accordance with ASTM C 171. Sheeting shall extend 12 inches beyond the edges of placement, be secured to the perimeter of the pavement repair with 15-pound minimum sand bags spaced 12 inches center-to-center, beginning at the repair edge and proceeding inward in a grid pattern over the entire placement area to ensure an air-tight enclosure.

613.3.23.1.2 **White-Burlap Polyethylene Sheeting.** White-Burlap Polyethylene Sheeting for moist curing shall consist of burlap weighing not less than 9 ounces/yard² extrusion coated on one side with white opaque polyethylene of a minimum nominal thickness of 4.0 mils and meeting the requirements of ASTM C 171. Sheeting shall be secured to the perimeter of the pavement repair to ensure an air-tight enclosure in the same manner as the polyethylene sheeting. Burlap shall be maintained in a moist condition through the curing period.

613.3.23.1.3 **High Performance Curing Compound**. Curing compound for moist curing concrete not to be overlaid with hot mix asphalt shall consist of a high performance white liquid membrane-forming compound that conforms to the requirements of ASTM C 1315 for Type 2, Class A or B as follows:

- 1. Percent Solids. The curing compound shall have a minimum of 42 percent solids (total solids minus pigment) by total weight and the vehicle shall be 100 percent poly-alpha-methylstyrene (PAMS)
- 2. Water retention. As per ASTM C 156 the loss of water shall not be more than 0.15 kg/m2 at 24 hours and no more than 0.40 kg/m² at 72 hours
- 3. Reflectance. As per ASTM E 1347, the three-day reflectance readings shall be greater than 65

- 4. Drying Time. As per ASTM C 1315 Part 8.3, shall set to touch in no longer than one hour after application and will be tack-free in no longer than four hours after application.
- 5. Application rate. The application rate of at least 1 gallon per no more than 200 square feet is required.
- 6. Flash Point. As per ASTM C 1315 Part 8.3, shall have a flash point greater than 100 F

613.3.23.1.4 **Tack Coat.** When hot mix asphalt is to be applied immediately after compressive strength is achieved and before opening to traffic, apply SS-1H meeting the requirements of Sec 1015 and applied in accordance with Sec 407 at a rate of 0.07 to 0.10 gallon per square yard.

613.3.23.1.5 **Self-Dissipating Curing Compound.** When hot mix asphalt is to be applied after a minimum of 5 days after compressive strength is achieved and after opening to traffic, apply a dissipating curing compound shall be applied with material being in accordance with ASTM C 309 Type I, Class B curing compound. The application rate of at least 1 gallon per no more than 200 square feet is required.

613.3.23.2 **Temperature Retention Curing.** If temperature retention material is not certified to meet the water retention requirements for water vapor transmission rate (WVTR) of the sheet material of no more than 10g/m² when tested in accordance with ASTM E 96, then moisture retention curing or polyethylene sheeting will be required with temperature retention curing. In accordance with Sec 1058, all polyethylene sheeting will be required to be a minimum of 4.0 mils thick. After moisture retention curing is applied and has set, closed-cell curing blankets shall be used. Closed-cell curing blankets (multi-use) shall be manufactured for hot and cold weather concrete curing use in accordance with Sec 1055.4.1.4 Closed-Cell Curing Blankets (Multi-Use), and shall be certified having a minimum R-value of 3. Cover materials shall be so placed and weighted that they remain in contact with the pavement surfaces and edges, providing an airtight enclosure in the same manner as in Sec 613.3.23.1. Application of curing blankets shall be based on ambient temperature and desired opening time in accordance with the following tables.

| Time to Opening Time (TOT), hrs | | |
|--|--|---|
| TOT ≤ 24 | 24 < TOT ≤ 36 | 36 < TOT ≤ 48 |
| Yes | Yes | Yes |
| Yes | No | No |
| No | No | No |
| *To reduce thermal cracking thermal curing shall be removed when the concrete temperature reaches 140° F. ** Concrete exposed to temperatures below 45° F may require additional curing blankets. | | |
| | TOT ≤ 24 Yes Yes No ng shall be re | $TOT \le 24$ $24 < TOT \le 36$ YesYesYesNoNoNong shall be removed when the co |

High Early Strength (24-48 Hour Opening to Traffic) Temperature Retention Requirements*

| Temperature Retention Requirements | | |
|---|-----------------------|--|
| Minimum Ambient Temperature Range in | Opening Time (T), hrs | |
| Curing Period, °F | 4 ≤ T ≤ 6 | |
| ≤ 80** | Yes | |
| > 80 | No | |
| *To reduce thermal cracking thermal curing shall be removed when the concrete temperature reaches 140° F. **Concrete exposed to temperatures below 45° F may require additional curing | | |
| blankets. | | |

Very Early Strength (4-6 Hour Opening to Traffic) Temperature Retention Requirements*

613.3.24 **Concrete Joint Sawing.** Equipment shall be in accordance with Sec 502.3.14 and the requirements specified herein. Concrete maturity shall be used to determine the compressive strengths specified below when maturity testing is required.

613.3.24.1 **Standard Concrete Saw**. When a standard (water cooled diamond bladed) concrete saw is used to cut the transverse or longitudinal joint when the pavement reaches 950 psi compressive strength (before final set) the following applies:

- For pavement < 7 inches thick, saw the joint to a minimum depth of one-fourth (T/4) the specified pavement thickness.
- For pavements \geq 7 inches thick, saw the joint to a minimum depth of one-third (T/3) the specified pavement thickness.
- Saw joints 3/8 inch $\pm 1/16$ inch wide as measured at the time of sawing.

613.3.24.2 **Early-Entry Saw.** When using early-entry (dry cut, light weight) saws, only use saw blades and skid plates as recommended by the manufacturer. Perform the early entry sawing reaches 150 psi compressive strength (after initial set and before final set) as follows:

- Saw the joint 2-1/4 to 2-1/2 inches deep.
- Saw joints approximately 1/8 inch ± 1/16 inch wide as measured at the time of sawing.

613.3.25 **Concrete Joint Sealing.** If the repaired area is not to be resurfaced, the joints and overcut from the sawing operations shall be filled with an approved joint material. For concrete pavement not to be resurfaced, seal joints in accordance with Sec 502.9.

613.3.25.1 **Sealing Crack Relief.** Remove isolation joint material to a depth of 1 inch below the pavement surface. Immediately prior to sealing, the crack relief must be clean, dry, and free of all incompressible material. Seal the crack relief with hot-poured sealant as specified in Sec 613.3.25. The top of the sealant (after cooling) must be flush to 1/8 inch below the surface of the pavement.

613.3.26 **Compressive Strength Requirements.** For High Early Strength (24 to 48 hour opening) repair, the opening compressive strength shall be attained based upon concrete cylinders cast in the field and broken by the Division of Construction-Materials Section. At the

contractor's option, the opening compressive strength of the 24 to 48 hour mix may be determined in accordance with Sec 507. For Very Early Strength (4 to 6 hour opening) repair, the opening compressive strength shall be attained based upon concrete maturity in accordance with Sec 507. When the repair is to be made and opened early to traffic, the concrete shall be in accordance with the following requirements:

| | e e e e e e e e e e e e e e e e e e e | |
|-----------------------------|---------------------------------------|---------------|
| | | Minimum |
| Property | Repair Thickness | Required, psi |
| 28-day Compressive Strength | All thicknesses | 5,000 |

28-Day Minimum Compressive Strength Requirement

| Densis | Repair | • | ength for Opening fic, psi ^a |
|---|---------------------------------------|--|--|
| Repair Class | Thickness, inches | Repair Length, 6 - 10 feet | Repair Length, > 10 feet |
| Α | T ≤ 8 | 3,000 | 3,600 |
| В | 8 < T≤ 9 | 2,400 | 2,700 |
| С | 9 < T < 10 | 2,200 | 2,300 |
| D | T ≥ 10 | 2,000 | 2,000 |
| compressive stree opened to traffic 613.3.27.2 when | ength for opening in less than the | e determined to re to traffic. The roa early opening time exceeds the specifie ir. | dway shall not be specified. See Sec |

Early Compressive Strength for Opening Requirements

613.3.27 **Damaged or Defective Concrete.** Rain damage, spalling and transverse shrinkage cracks will be cause for rejection of the concrete. Concrete pavement not in compliance with straightedge smoothness specifications shall be corrected by grinding or removal and replacement. Concrete repair with low pavement repair compressive strength at the time of opening will be subject to a pay adjustment.

613.3.27.1 The Engineer shall reject any pavement repair area that develops 1 or more transverse cracks within 21 days after placement. The contractor shall remove and replace this pavement repair with pavement repair concrete that complies with the specifications. A transverse crack is a crack running from one longitudinal edge of the panel to the other. The Engineer shall adjust payment for concrete pavement repair that is not opened within the specified time due to failure to meet the specified minimum compressive strength. Compressive strength will be determined as specified for the early opening repair required.

613.3.27.2 Pay Adjustment for Failure to Meet Minimum Opening Compressive Strength of Pavement, Joint or Base Repair. The Engineer shall adjust payment for

concrete repair that is not opened within the specified time due to failure to meet the specified minimum compressive strength as follows:

613.3.27.2.1 Payment at the Contract price for the above bid items shall be full compensation for all labor, equipment and material required to do the Work. Work is the defined as all the pavement, joint or base repair work performed during each closure period. Where Work does not conform to the minimum compressive strength requirements and delays the time to opening beyond the maximum of 6.0 hours for Very Early Strength or 48.0 hours for High Early Strength, a payment adjustment (PA) will be made according to the following equation:

PA = Quantity x Bid Unit Price x (PF)

Time to opening (TTO) is measured from when the last repair concrete placement is begun until removal of the traffic control from the lane closure is completed. Time of opening shall be determined by the Engineer to a quarter hour basis. Pay factor shall be determined to the nearest 0.01. The pay factor (PF) for the each lane closure shall be determined according to the following appropriate Tables:

| Very Earl | y Opening |
|-----------------|---------------------|
| Time to Opening | |
| (TTO), hrs | Pay Factor (PF) |
| TTO ≤ 6.0 | PF = 1.00 |
| 6.0 < TTO < 8.0 | PF = 1-0.25x(TTO-6) |
| TTO ≥ 8.0 | PF = 0.50 |

| High Ea | arly Opening |
|-------------------|------------------------|
| Time to Opening | |
| (TTO), hrs | Pay Factor (PF) |
| TTO ≤ 48.0 | PF = 1.00 |
| 48.0 < TTO < 72.0 | PF = 1-0.0208x(TTO-48) |
| TTO ≥ 72.0 | PF = 0.50 |

613.3.27.3 **Diamond Grinding.** Pavement repair(s) that fail to meet the smoothness requirement shall be corrected by diamond grinding in accordance with the following.

613.3.27.3.1 **Description.** This work shall consist of grinding the surface of Portland cement concrete pavement repair as directed by the Engineer and as specified in these special provisions.

613.3.27.3.2 **Location.** Grinding shall begin and end at lines perpendicular to the pavement center line and shall be centered within the lane width. When deficient concrete repair pavement is ground, the grinding shall take place in the longitudinal direction of the traveled way, shall cover the full lane width and smoothly transition into and out of the repair.

613.3.27.3.3 **Texture.** Grinding concrete pavement repair must result in a parallel corduroy texture with grooves from 0.08 to 0.12 inch wide and from 50 to 60 grooves per foot of width. Grooves must be from 0.06 to 0.08 inch from the top of the ridge to the bottom of the groove.

613.3.27.3.4 **Profile Grinding.** Grinding concrete pavement repair constructed as part of the project that is not in compliance with straightedge smoothness specifications must comply with the following:

- 1. Both sides of transverse joints and cracks must have the same depth of texture. The surface must be within 0.01 foot of the lower edge of a 10-foot long straightedge when laid parallel with the centerline with its midpoint at the joint or crack.
- 2. If necessary, perform additional grinding to achieve the required surface smoothness. Straightedge requirements do not apply to areas abnormally depressed from subsidence or other localized causes. End straightedge testing 25 feet before and resume 25 feet after these areas.
- 3. Cross-slope must be uniform and have positive drainage across the traveled way and shoulder. The surface must be within 0.02 foot of the lower edge of a 10-foot long straightedge when laid perpendicular to the centerline.

613.3.27.3.5 **Pavement Grinding Residue.** Remove grinding residue with a vacuum attached to the grinding machine. Prevent residue from flowing across the pavement or remaining on the pavement surface. Dispose of grinding residue at an appropriate disposal facility. Do not store concrete pavement grinding residue within the highway. If authorized, the Contractor may transport liquid grinding residue to an offsite location for drying. The offsite drying location must be identified and protected under the SWPPP or Water Pollution Control Program.

613.3.27.3.6 **Pavement Repair Replacement.** Instead of grinding, the Contractor may remove and replace deficient concrete repair pavement at their expense. The new concrete pavement must be the same thickness as the removed pavement. Replace between longitudinal joints or pavement edges and between transverse joints. Do not remove portions of slabs.

613.4 Method of Measurement.

613.4.1 Measurement for furnishing and placing Portland Cement Concrete and macro-fiber will be made to the nearest 0.1 square yard.

613.4.2 Full depth pavement removal will be measured as Removal of Rigid Pavement to the nearest square yard.

613.4.3 Measurement for rock base preparation and stabilization will be made to the nearest 0.1 square yard.

613.4.4 No measurement will be made for drilling dowel or tie-bar holes, keyway construction, furnishing and installing dowels, tie-bars, epoxy or polyester bonding agent, saw cutting and removing existing concrete pavements, concrete maturity loggers, assistance with creation,

verification and maintenance of concrete-maturity curve, curing, macro-fiber, date stamping, or for subgrade or aggregate base compaction.

613.5 **Basis of Payment**. The accepted quantities of pavement repair at transverse or longitudinal joints or concrete base will be paid for at the contract unit price for removal of rigid pavement and for pavement repair. No direct payment will be made for: drilling and installing dowels; saw cutting pavements; subgrade or aggregate base compaction; aggregate base material used to replace unstable grade; or other work incidental to the completed pavement repair.

613.5.1 No extra compensation for removal and replacement of temporary repair, contractor optional extra repair depth not to exceed 2 inches, corrective finishing or repairs to damaged or defective concrete will be paid.

613.5.2 The Pay Adjustment shown in Sec 613.3.27.2 is used for the purpose of determining penalties. The Engineer shall adjust payment for concrete pavement repair when opening to traffic exceeds the maximum specified. (Ex.: PA = Quantity x Bid Unit Price x (PF); for a very early opening time to reach the minimum compressive strength it took 7 hours; unit price is \$300/sy; the quantity represented by the closure was 75 SY; the PF = 1-0.25*(TTO-6) = 1-0.25*(7-6) = 1-0.25 = 0.75; so the actual payment is the PA = 75 sy x \$300/sy x 0.75 = \$16,875)

ITEMIZED BID

FEDERAL PROJECT NO. STP-4901(635) COUNTY PROJECT NO. AR-1388

PAGE 1 0F 5

| ITEM NO. | ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | AMOUNT |
|-----------|--|------|----------|------------|--------|
| ROADV | /AY ITEMS | | | | |
| 201-20.11 | Clearing Vegetation from Pedestrian Access Route | L.S. | 1 | | |
| 202-20.10 | Removal of Improvements | L.S. | 1 | | |
| 202-20.10 | Removal of Rigid Pavement | S.Y. | 394.6 | | |
| 203-10.00 | Class "A" Excavation | C.Y. | 688.7 | | |
| 203-10.30 | Land Disturbance Permits | L.S. | 1 | | |
| 304-05.04 | Type 5 Aggregate Base (4" Thick) | S.Y. | 3,081.3 | | |
| 309-11.08 | Concrete Base (8", Non-Reinforced) | S.Y. | 233.9 | | |
| 404-09.04 | Superpave Asphaltic Concrete SP 95 (PG 70-22) D | TON | 110.0 | | |
| 404-12.72 | Superpave Asphaltic Concrete SP 125 (PG 70-22) DLP | TON | 3,680.1 | | |
| 405-30.10 | Type "C" Bituminous Concrete (Pavement) | TON | 10.8 | | |
| 405-30.20 | Type "D" Bituminous Concrete (Pavement) | TON | 28.9 | | |
| 405-30.30 | Type "X" Bituminous Concrete (Base) | TON | 859.1 | | |
| 407-10.27 | Tack Emulsified Asphalt (SS-1H) | GAL. | 3,100 | | |

ITEMIZED BID

FEDERAL PROJECT NO. STP-4901(635) COUNTY PROJECT NO. AR-1388

PAGE 2 0F 5

| ITEM NO. | ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | AMOUNT |
|-----------|--|------|----------|------------|--------|
| 412-10.02 | Pavement Surfacing and Texturing (0" to 2"), Concrete or Asphalt | S.Y. | 28,117 | | |
| 509-10.08 | Concrete Base (8", Non-Reinforced), Very Early Strength | S.Y. | 160.7 | | |
| 603-10.35 | Adjust Water Service Valve Box to Grade | EACH | 3 | | |
| 604-20.30 | Adjusting Manhole to Grade | EACH | 21 | | |
| 604-21.95 | Replace Precast Inlet Top | EACH | 6 | | |
| 604-90.40 | Adjust Inlet Stone to Grade | EACH | 1 | | |
| 604-90.50 | Replace Precast Inlet Top and Adjust to Grade | EACH | 4 | | |
| 604-90.52 | Replace Inlet Sill | EACH | 3 | | |
| 608-10.90 | Remove & Replace Concrete Median / Island | S.Y. | 180.8 | | |
| 608-50.96 | Remove & Replace Paved Approach (6") | S.Y. | 68.2 | | |
| 609-10.54 | Curb & Gutter, Mountable (6") | L.F. | 200 | | |
| 609-10.93 | Remove and Replace Curb & Gutter (Various Widths), Vertical / Mountable | L.F. | 3,334 | | |
| 609-20.90 | Remove and Replace Integral Curb (6" Height and Under) | L.F. | 257 | | |
| 612-30.10 | Standard Traffic Control Devices | L.S. | 1 | | |
| 612-60.92 | Arrow Panel, Type "B" (Noiseless), Rental | EACH | 4 | | |

ITEMIZED BID

FEDERAL PROJECT NO. STP-4901(635) COUNTY PROJECT NO. AR-1388

PAGE 3 0F 5

| ITEM NO. | ITEM DESCRIPTION | UNIT | QUANTITY | UNIT PRICE | AMOUNT |
|-----------|--|------|----------|------------|--------|
| 613-10.18 | Joint Repair - Transverse, High Early Strength | S.Y. | 368.6 | | |
| 613-10.91 | Joint Repair - Transverse, Very Early Strength | S.Y. | 52.0 | | |
| 619-00.00 | Mobilization | L.S. | 1 | | |
| 803-20.00 | Strip Sodding | S.Y. | 1,232 | | |
| 806-45.00 | Inlet Protection | L.S. | 1 | | |
| | SUB TOTAL ROADWAY ITEMS | | | | |
| | | | | | |
| PEDEST | RIAN & BICYCLE ITEMS | | | | |
| 412-20.00 | Sidewalk Grinding | EACH | 100 | | |
| 608-60.08 | Concrete Sidewalk, Curb Ramp | EACH | 27 | | |
| 608-60.94 | Remove & Replace Concrete Sidewalk (4" Thick) | S.Y. | 473.9 | | |
| 608-60.96 | Remove & Replace Concrete Sidewalk (6" Thick) | S.Y. | 110.2 | | |
| 608-60.98 | Truncated Domes for Curb Ramp (New Construction) | S.F. | 30 | | |
| | SUB TOTAL BICYLCE & PEDESTRIAN ITEMS | | | | |

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| SUBTOTAL 1 1 | PROJECT TOTAL | | 승규는 아이는 것은 것이 가지 않는 | | 이는 것 같은 사람이 있는 것 같은 것 같은 것 같은 것 같은 것 같은 것 같은 것은 것은 것은 것은 것은 것은 것이 있는 것이 같이 있는 것이 없다. |
|--------------------|---------------|--------------|---|---|--|
| | | UNIT | ITEM NO. | FEDERAL PROJECT NO. STP-4901 (635) DESCRIPTION | |
| 1 | | | | ROADWAY ITEMS | |
| 1 | | | | | |
| | | L.S. | 201-20.11 | CLEARING VEGETATION FROM PEDESTRIAN ACCESS ROUTE | Not shown on B sheets. |
| 394.6 | 394.6 | L.S. S.Y. | 202-20.10 202-22.30 | REMOVAL OF IMPROVEMENTS REMOVAL OF RIGID PAVEMENT | Not shown on B sheets. |
| 626.1 | 688.7 | C.Y. | 202-22.30 | CLASS "A" EXCAVATION | 10% added. Includes Removal |
| 1 | 1 | L.S. | 203-10.30 | LAND DISTURBANCE PERMIT | TU 70 AUGEU. INCIDUES REITIOVA |
| 2801.2 | 3081.3 | S.Y. | 304-05.04 | TYPE 5 AGGREGATE BASE (4" Thick) | Includes 10% additional. |
| 233.9 | 233.9 | S.Y. | 309-11.08 | CONCRETE BASE (8" NON-REINFORCED) | |
| 110.0 | 110.0 | TON | i de la companya de l | SUPERPAVE ASPHALTIC CONCRETE MIXTURE SP95 (PG 70-22) D | |
| 3,345.5 | 3,680.1 | TON | | SUPERPAVE ASPHALTIC CONCRETE MIXTURE SP125 (PG 70-22) DLP | Estimated at 2" thick and 2.16 |
| 9.8 24.1 | 10.8 | TON TON | 405-30.10 | | Includes 10% additional |
| 781.0 | 859.1 | TON | 405-30.20 405-30.30 | TYPE "D" BITUMINOUS CONCRETE (PAVEMENT) TYPE "X" BITUMINOUS CONCRETE (BASE) | As directed by Engineer, 20% |
| 3,100 | 3,100 | GAL | 407-10.27 | TACK-EMULSIFIED ASPHALT (SS-1H) | Includes 10% additional Estimated at 0.10 Gallon / SY. |
| 28,117 | 28,117 | S.Y. | and the second se | PAVEMENT SURFACING AND TEXTURING (0" - 2"), CONCRETE OR ASPHALT | Includes side street approache |
| 100 | 100 | EACH | 412-20.00 | SIDEWALK GRINDING | |
| 160.7 | 160.7 | S.Y. | 509-10.08 | CONCRETE BASE (8" NON-REINFORCED), VERY EARLY STRENGTH * | |
| 3 | 3 | EACH | 603-10.35 | ADJUST WATER SERVICE VALVE BOX TO GRADE | |
| 21 | 21 | EACH | 604-20.30 | ADJUSTING MANHOLE TO GRADE | |
| 6 | 6 | EACH | | REPLACE PRECAST INLET TOP | |
| <u> </u> | 1 | EACH EACH | | ADJUST INLET STONE TO GRADE | |
| 4 3 | 3 | EACH | 604-90.50 604-90.52 | REPLACE PRECAST INLET TOP AND ADJUST TO GRADE REPLACE INLET SILL | |
| 180.8 | 180.8 | S.Y. | | REMOVE AND REPLACE CONCRETE MEDIAN / ISLAND | |
| 68.2 | 68.2 | S.Y. | | REMOVE AND REPLACE PAVED APPROACH (6") | |
| 27 | 27 | EACH | 608-60.08 | CONCRETE SIDEWALK, CURB RAMP | Includes all items as described |
| 473.9 | 473.9 | S.Y. | 608-60.94 | REMOVE AND REPLACE CONCRETE SIDEWALK (4" THICK) | Includes sawcutting. |
| 110.2 | 110.2 | S.Y. | | REMOVE AND REPLACE CONCRETE SIDEWALK (6" THICK) | Includes sawcutting. |
| 30 | 30 | S.F. | | TRUNCATED DOMES FOR CURB RAMPS (New Construction) | |
| 200 | 200 | L.F. | and the second | CURB & GUTTER, MOUNTABLE (6") | Includes sawcutting as needed |
| 3,334 257 | 3,334 257 | L.F. L.F. | | REMOVE AND REPLACE CURB & GUTTER (VARIOUS WIDTHS), VERTICAL/ MOUNTABLE | Includes sawcutting, excavatio |
| <u> </u> | | L.F. | | REMOVE AND REPLACE INTEGRAL CURB (6" HEIGHT AND UNDER) STANDARD TRAFFIC CONTROL DEVICES | Includes sawcutting and aggre Not shown on B sheets. |
| 4 | 4 | EACH | | ARROW PANEL, TYPE "B" (NOISELESS), RENTAL | |
| 368.6 | 368.6 | S.Y. | | JOINT REPAIR - TRANSVERSE, HIGH EARLY STRENGTH * | Includes all items as described |
| 52.0 | 52.0 | S.Y. | 613-10.91 | JOINT REPAIR - TRANSVERSE, VERY EARLY STRENGTH * | Includes all items as described |
| 1 | 1 | L.S. | | MOBILIZATION | |
| 1,120 | 1,232 | S.Y. | | STRIP SODDING | Includes 10% additional |
| <u></u> | <u></u> | L.S. | 806-45.00 | INLET PROTECTION | Not shown on B sheets. |
| | | | | COUNTY TRAFFIC SIGNAL ITEMS | |
| 24 | 24 | FACUL | 004 04 04 | | |
| | 24 | EACH EACH | | SIGNAL HEAD, TYPE 1S, PEDESTRIAN POST, SIGNAL W/ SQUARE PEDESTAL BASE AND POST CAP, 10' TOTAL HEIGHT, ALUMINUM | |
| 24 | 24 | EACH | | DETECTOR, PEDESTRIAN PUSH BUTTON | |
| 23 | 23 | L.F. | | CONDUIT, 1" | |
| 89 | 89 | L.F. | 904-52.00 | CONDUIT, 2" | |
| 1 | 1 | EACH | 904-74.99 | CONDUIT REPAIR (LOCATE BROKEN CONDUIT, EXCAVATE, REMOVE EXISTING CABLE, REPAIR/ REPLACE COND REINSTALL CABLE, BACKFILL AND RESTORE). (DOES NOT INCLUDE SIDEWALK OR PAVEMENT R & R) | UT, |
| 840 | 840 | L.F. | 904-83.05 | CABLE, SIGNAL, #14 GAUGE, 5 CONDUCTOR | |
| 160 | 160 | L.F. | | WIRE, STRANDED GROUND, #6 GAUGE | |
| 484 | 484 | L.F | | CABLE DETECTOR LOOP, #14 GAUGE, 1 CONDUCTOR, W/ TUBE JACKET (IN CONDUIT AND PULL BOXES) | |
| 10,653 810 | 10,653 | L.F. | | CABLE DETECTOR LOOP, #14 GAUGE, 1 CONDUCTOR, W/ TUBE JACKET (IN SAWED SLOT) | |
| 7 | 810 | L.F. EACH | | CABLE, PUSH BUTTON AND/ OR DETECTOR LOOP LEAD-IN, #18 GAUGE, 2 CONDUCTOR (SHIELDED) BASE, TYPE C-3, CONCRETE | |
| <u> </u> | 7 | EACH | | OPENING DRILLED IN EXISTING CONCRETE PULL BOX | |
| 1 | 1 | EACH | | ADJUSTMENT OF PREFORMED PULL BOX | |
| 4 | 4 | EACH | | ADJUSTMENT OF CONCRETE SINGLE PULL BOX | |
| 24 | 24 | EACH | | REMOVAL OF SIGNAL HEAD | |
| 1 | 1 | EACH | 904-98.60 | RELOCATION OF EXISTING PUSH BUTTON | |
| 1 | 1 | EACH | 904-98.70 | RELOCATION OF EXISTING SIGNAL HEAD | |
| | | | | | |
| | | | | * INDICATES CHANGE IN PAY ITEM NUMBER AND DESCRIPTION UNDER ADDENDUM NO.2 | |

| | | ROJECT NO. |
|--|--|--|
| | FEDERAL PF | 1388 ROJECT NO. |
| | STP-49 E-W GATEV | 001(635) WAY TIP NO. |
| REMARKS | MSD: | 2-14 /A |
| REWARKS | MSD BASE N | IAP: |
| | | , J-23 |
| | 0N 0. 2 | |
| | S DESCRIPTION NDUM NO. | |
| ninous Concrete pavement. | VISIONS DESCRIPTIO ADDENDUM NO | |
| | Щ | |
| coludes side street energeshes 4004 addad | APF | |
| ncludes side street approaches. 10% added. | DATE BY | |
| l shown. | REV. DA | |
| 10% additional (rounded to up nearest 10 gal.) | | vey |
| | DISCLAIMER OF RESPONSIBILITY I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any | responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part of the engineering project or survey |
| | DISCLAIMER OF RESPONSIBILITY I hereby specify that the documents intended to authorized by my seal a limited to this sheet, and hereby disclaim any | responsibility for all other Drawings, Specifications, Estimates, Reports or off documents or instrument relating to or intended to used for any part of the engineering project or su |
| | DISC <u>RESI</u> hereby s locumen uthorize mited to ereby di | esponsit brawings istimates locumen locumen locumen istimg to ised for a |
| | | 11177 |
| | * DANIEL | |
| | FA FIGIST | JOSEPH * BER 7002782 |
| al Provision 100.20.9 and sawcutting as needed | AROFE | rup2782 |
| | DATE: | |
| | | 16, 2014 |
| al of entire C&G section, and aggregate base | ON 1 BLVD. | H FAUKE ENGINEER 007002782 |
| | DIVISIC BERGH SSOUR | SEPH F AL EN(). 2007(|
| 100.70.8 | REPARED BY: DESIGN DIVISION 1050 N. LINDBERGH BLVD. ST. LOUIS, MISSOURI 6313 (2414) 646 | DANIEL JOSEPH FAUKE PROFESSIONAL ENGINEEI LICENSE NO. 2007002782 |
| 100.70.8 | REPARED BY: DESIGN 1050 N. LIND ST. LOUIS, ME | DAN PROFI |
| | | |
| | Saint Louis COUNTY | PUBLIC WORKS Sheryl L. Hodges, D.E., P.E., LPG Director |
| | | PUBLIC WORKS Hodges, D.E., P.E. Director |
| | aint D | JBLIC WC Hodges, D.I Director |
| | | Pl eryl L. I |
| | | |
| | | SUMMARY OF QUANTITIES |
| | AVENUE AVENUE CTURE | ANTI |
| | KY A\ IE A\ RUCT | au |
| | BUF OWN STF | Y OF |
| | SHREWSBURY AVENUE LANSDOWNE AVENUE INFRASTRUCTURE | AAR |
| | SHR | NMU |
| | | Ś |
| | DESIGNED: | DJF |
| | DRAWN: | DJF |
| | CHECKED: SHEET SEQU | ENCE |
| | 2A O | |
| | | |

| LOOATION | | ted by the Engineer. Includes saw | | | SUPERPAVE ASPHALTIC CONCRET ns & quantities to be determined by the Engi | neer. Approxim | nately 2" thick, estimated at 2.16 T/CY. |
|--|----------------------------|---|--|--|---|-----------------------|---|
| LOCATION | SIDE (Rt / Lt) | QUANTITY S.Y.(0.1) | | LOCATION | FROM <u>TO</u> | QUANTITY | |
| | (11677 - 5 9 | <u></u> | | | | <u>TON (0.1)</u> | |
| Shrewsbury Ave | Rt/Lt | 233.9 | R&R 8" concrete base (see Item No. 309-11.08) | Shrewsbury Ave | Big Bend Blvd I-44 (End of Maint. |) 1,400.4 | mainline pavement north of I-44 |
| Shrewsbury Ave | Rt / Lt | 160.7 | R&R 8" concrete base (see Item No. 309-10.08) | | | 22.4 | approach at Suffolk Ave |
| TOTAL | | 394.6 | | | I-44 (End of Maint.) Murdoch Ave | 44.6 | approach at Arlington Ave mainline south of I-44; includes approaches at Murdoch Ave |
| | | | | | | 28.1 | approaches at Sutherland Ave (117 SY each) |
| or D&D 9" concrete base, conhelt base | rapaira DPD concrete m | CLASS "A" EXCAVATION | | | | 36.6 | approaches at Lansdowne Ave |
| LOCATION | SIDE | | roaches, and R&R 6" sidewalk (4" depth unless noted otherwise). REMARKS | | | 18.7 | approaches at Devonshire Ave |
| | <u>(Rt / Lt)</u> | <u>C.Y.(0.1)</u> | | Lansdowne Ave | Shrewsbury St. Vincent Ave | 616.9 | mainline; does not include approaches at Shrewsbury Ave |
| ~ ~ ~ | | | | | | 15.5 | side street (St. Vincent Ave). |
| Shrewsbury Ave | Rt/Lt | <u> </u> | R&R 8" concrete base (see Item No. 309-10.08) R&R 8" concrete base (see Item No. 309-11.38) | | | | |
| | | 2010 | Rait & concrete base (see item no. 509-11.36) | Lansdowne Ave | St. Vincent Ave City Limits (EOM) | 170.6 70.3 | mainline; does not include approach at Murdoch Cutofff approach at Mudoch Cutoff |
| Lansdowne Ave | Rt / Lt | 542.3 | Type "X" asphalt base repair; 12" depth (see Item No. 405-30.30) | | | 10.0 | |
| Shrewsbury Ave | Rt / Lt | 20.1 | D*D concerts median/intend (and them No. 000 40.00) | TOTAL | | 3,345.5 | |
| Sillewsbully Ave | | 20.1 | R&R concrete median/ island (see Item No. 608-10.90) | 405-30.10 | TYPE "C" BITUMINOUS CO | | VENENT |
| Shrewsbury Ave / Lansdowne Ave | Rt / Lt | 7.6 | R&R 6" paved approach (see Item No. 608-50.96) | | Exact locations & quantities to be determined | | |
| Shrowebury Ave / Landows Ave | D1 /11 | | | LOCATION | FROM TO | QUANTITY | <u>REMARKS</u> |
| Shrewsbury Ave / Lansdowne Ave | Rt / Lt | 12.2 | R&R 6" sidewalk (see Item No. 608-60.96) | | | <u>TON (0.1)</u> | |
| TOTAL | | 626.1 | | Laclede Gas entrance | Lt | 5.0 | overlay drive approach; (11' x 34', 2" thick); opposite 4117 |
| | | | | Laclede Gas entrance | Ĺť | 4.8 | overlay drive approach; (11'x 33', 2" thick); opposite 4113 |
| For use under 8" concrete l | | YPE 5 AGGREGATE (4" THICK) irs 6" sidewalks paved approach | es, transverse joint repairs, and concrete medians. | | | | |
| LOCATION | SIDE | QUANTITY | | TOTAL | | 9.8 | en presentant en senten en sen Senten en senten en s |
| | (Rt / Lt) | <u>S.Y.(0.1)</u> | | 405-30.20 | TYPE "D" BITUMINOUS CO | | |
| Shrewsbury Ave | Rt / Lt | 160.7 | for D&D & concrete have (and them b) - 000 40.00 | | xact locations & quantities to be determined | by the Enginee | r. Estimated at 2.16 T/CY. |
| Sinewabuly Ave | | 233.9 | for R&R 8" concrete base (see Item No. 309-10.08) for R&R 8" concrete base (see Item No. 309-11.38) | LOCATION | SIDE (Rt / Lt) | QUANTITY TON (0.1) | |
| | | | | | | <u>10N (0.1)</u> | |
| Lansdowne Ave | Rt / Lt | 1627.0 | for Type "X" asphalt base repair (see Item No. 405-30.30) | 7500 Big Bend (KFC) | Rt | 3.4 | overlay drive approach; (40' x 8.5', 1.5" thick) |
| Shrewsbury Ave | Rt/Lt | 180.8 | for R&R concrete median/ island (see Item No. 608-10.90) | 4009 Shrewsbury | Rt | 0.8 | overlay drive approach; (13' x 6', 1.5" thick) |
| | | | | 4015 - 4101 Shrewsbury 4103 - 4105 Shrewsbury | Rt Rt | 1.8 | overlay drive approach; (30' x 6', 1.5" thick) overlay drive approach; (28' x 6', 1.5" thick) |
| Shrewsbury Ave / Lansdowne Ave | Rt / Lt | 68.2 | for R&R 6" paved approach (see Item No. 608-50.96) | 4105 Shrewsbury | Rt | 1.0 | overlay drive approach; (17' x 6', 1.5" thick) |
| Shrewsbury Ave / Lansdowne Ave | Rt/Lt | 110.0 | | 4107 Shrewsbury | Rt | 0.7 | overlay drive approach; (13' x 5.5', 1.5" thick) |
| Sillewsbury Ave / Lansdowne Ave | | 110.0 | for R&R 6" sidewalk (see Item No. 608-60.96) | 4111 Shrewsbury 4113 Shrewsbury | Rt Rt | 1.1 | overlay drive approach; (18' x 6', 1.5" thick) |
| Shrewsbury Ave | Rt / Lt | 368.6 | for transverse joint repair (see Item No. 613-10.17) | 4115 Shrewsbury 4115 Shrewsbury | Rt | 0.8 | overlay drive approach; (13' x 6', 1.5" thick) overlay drive approach; (15' x 6', 1.5" thick) |
| | | 52.0 | for transverse joint repair (see Item No. 613-10.90) | 4117 Shrewsbury | Rt | 0.9 | overlay drive approach; (15' x 6', 1.5" thick) |
| TOTAL | | 2.801.2 | n. En se se service de la secte de la service de la se El se se service de la servi | 4119 Shrewsbury | Rt | 1.4 | overlay drive approach; (23' x 6', 1.5" thick) |
| | | | | 3917 Shrewsbury 3920 Shrewsbury Ave (Overhead Door Co.) | Rt I t | 1.7 | overlay drive approach; (28' x 6', 1.5" thick) overlay drive approach; (27' x 10', 1.5" thick) |
| | CONC | RETE BASE (8" NON-REINFOR | CED) | Lansdonwne Ave at Shrewsbury Ave | Lt | 2.7 | overlay shoulder along 4400 Shrewsbury; (100' x 4', 1" thick) |
| LOCATION | SIDE | As directed by the Engineer. QUANTITY | REMARKS | 7326 Lansdowne | Rt | 1.0 | overlay drive approach; (12' x 8', 1.5" thick) |
| | (Rt / Lt) | <u>S.Y.(0.1)</u> | | 7324 Lansdowne | Rt | 1.5 | overlay drive approach; (17' x 9', 1.5" thick) |
| | | | | TOTAL | | 24.1 | |
| 4111 Shrewsbury 4113 Shrewsbury | Rt Rt | <u> </u> | (12' x 12'); located in through lane | | | | |
| 7502 Arlington | Rt | 12.0 | (15' x 12'); located in curb lane (12' x 9'); located in through lane | 405-30.30 | TYPE "X" BITUMINOUS xact locations & quantities to be determined l | | |
| 7502 Arlington | Rt | 18.0 | (18' x 9'); located in curb lane | LOCATION | SIDE | | |
| 7502 Arlington | Rt | 8.7 | (13' x 6'); located in curb lane | | (Rt / Lt) | TON (0.1) | |
| 7505 Shrewsbury 7500 Lansdowne | Rt Rt | <u> </u> | (12' x 24'); located in through lane (12' x 10'); located in curb lane | 7420 Lansdowne | Rt | | |
| 7501 Murdoch (office building) | Rt | 18.3 | (15' x 11'); located in through lane | 7420 Lansdowne 7420 Lansdowne | Lt | 24.0 | asphalt base repair (shoulder), (9' x 50', 8" thick) asphalt base repair (shoulder), (7' x 60', 8" thick) |
| Shrewsbury at Arlington | Lt | 15.6 | (10' x 14'); located in curb lane | 7418 Lansdowne | Lt | 28.8 | asphalt base repair (drive lane), (15' x 36', 8" thick) |
| Laclede Gas Complex Laclede Gas Complex | Lt Lt | 40.0 20.0 | (12' x 30'); located in curb lane (opposite 7504 Suffolk) (15' x 12'); located in through lane (opposite 7504 Suffolk) | 7416 Lansdowne | Rt | 21.6 | asphalt base repair (shoulder), (9' x 45', 8" thick) |
| Laclede Gas Complex | Lt | 20.0 | (15' x 12'); located in through lane (opposite 7504 Suffolk) | 7414 Lansdowne 7408 Lansdowne | Rt Rt | 50.4 28.8 | asphalt base repair (drive lane), (15' x 63', 8" thick) asphalt base repair (shoulder), (9' x 60', 8" thick) |
| | | | | 7412 Lansdowne | Lt | 50.4 | asphalt base repair (drive lane), (15' x 63', 8" thick) |
| TOTAL | | 233.9 | | 7404 Lansdowne | Rt | 44.8 | asphalt base repair (drive lane), (12' x 70', 8" thick) |
| | SUPERPAVE ASP | HALTIC CONCRETE MIXTURE | SP95 (PG70-22)D | 7402 Lansdowne 7340 Lansdowne | Lt Rt | 14.4 | asphalt base repair (shoulder), (9' x 30', 8" thick) |
| | act locations & quantities | to be determined by the Engineer | . Estimated at 2.16 T/CY. | 7340 Lansdowne | Lt | 21.6 | asphalt base repair (drive lane), (9' x 45', 8" thick) asphalt base repair (drive lane), (15' x 63', 8" thick) |
| LOCATION | FROM | TO QUANTITY | REMARKS | 7324 Lansdowne | Rt | 48.0 | asphalt base repair (drive lane), (15' x 60', 8" thick) |
| | | <u>TON (0.1)</u> | | 7324 Lansdowne | | 96.0 | asphalt base repair (drive lane), (15' x 120', 8" thick) |
| Shrewsbury Ave | Big Bend Blvd | Murdoch Ave 110.0 | For use in spot wedging | 7318 Lansdowne 7312 Lansdowne | | 44.0 | asphalt base repair (drive lane), (15' x 55', 8" thick) asphalt base repair (drive lane), (15' x 45', 8" thick) |
| | | | | 7312 Lansdowne | Lt | 60.0 | asphalt base repair (drive lane), (15 x 45, 8' thick) |
| TOTAL | | 110.0 | | 7310 Lansdowne | Rt | 12.0 | asphalt base repair (drive lane), (15' x 15', 8" thick) |
| | | | | 7308 Lansdowne 7306 Lansdowne | Rt | 26.4 | asphalt base repair (drive lane), (15' x 33', 8" thick) |
| | | | | Lansdowne at St. Vincent Ave | Lt | 48.0 | asphalt base repair (drive lane), (15' x 60', 8" thick) asphalt base repair (drive lane), (15' x 55', 8" thick) |
| | | | | Murdoch Cutoff right turn lane | Rt | 9.0 | asphalt base repair (drive lane), (21' x 8', 8" thick) |
| | | | | | | | |
| UMBER 309-10.08, CONCRET | E BASE (8" NON-R | EINFORCED), TYPE III C | EMENT W/ ACCELERATOR, 8.5 SACK | TOTAL | | 781.0 | |
| | O. 509-10.08, CON | CRETE BASE (8" NON-RE | EINFORCED), VERY EARLY STRENGTH | | | | |
| DENDUM NO. 2. | • | `` | | | | | |

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| | Laciede Gas Complex | |
|---------|---------------------|--|
| | Laclede Gas Complex | |
| | | |
| | TOTAL | |
| | | |
| 4-09.04 | | |

| | | AL OF RIGID PAVEMENT ne Engineer. Includes sawcut | itting. | 404-12.72 | Evention | | PHALTIC CONCRETE MIXTURE SP | |
|---|---|--|---|---------------|---|-------------------------------------|--|--|
| LOCATION | SIDE | QUANTITY | <u>REMARKS</u> | | LOCATION | FROM | etermined by the Engineer. Approxima | REMARKS |
| | <u>(Rt / Lt)</u> | <u>S.Y.(0.1)</u> | | | | | <u>TON (0.1)</u> | |
| Shrewsbury Ave | Rt/Lt | | R&R 8" concrete base (see Item No. 309-11.08) | + | Shrewsbury Ave | Big Bend Blvd | I-44 (End of Maint.) 1,400.4 | mainline pavement north of I-44 |
| Shrewsbury Ave | Rt/Lt | 160.7 | R&R 8" concrete base (see Item No. 309-10.08) | | | | 22.4 44.6 | approach at Suffolk Ave approach at Arlington Ave |
| TOTAL | | 394.6 | | Ī | | I-44 (End of Maint.) | Murdoch Ave 921.2 | mainline south of I-44; includes approaches at Murdoch Ave |
| | | S "A" EXCAVATION | | | | | 28.1 36.6 | approaches at Sutherland Ave (117 SY each) approaches at Lansdowne Ave |
| R 8" concrete base, asphalt base LOCATION | epairs, R&R concrete median/ is SIDE | slands, R&R 6" paved approa QUANTITY | aches, and R&R 6" sidewalk (4" depth unless noted otherwise). REMARKS | - - | | | 18.7 | approaches at Devonshire Ave |
| | <u>(Rt / Lt)</u> | <u> </u> | <u>REWARKS</u> | | Lansdowne Ave | Shrewsbury | St. Vincent Ave 616.9 | mainline; does not include approaches at Shrewsbury Ave |
| Shrewsbury Ave | Rt / Lt | 17.9 | R&R 8" concrete base (see Item No. 309-10.08) | | | | 15.5 | side street (St. Vincent Ave). |
| - One wabuly Ave | | | R&R 8" concrete base (see item No. 309-10.08) | | Lansdowne Ave | St. Vincent Ave | City Limits (EOM) 170.6 | mainline; does not include approach at Murdoch Cutofff |
| Lansdowne Ave | Rt/Lt | 542.3 | Type "X" asphalt base repair; 12" depth (see Item No. 405-30.30) | | | | | approach at Mudoch Cutoff |
| | | | | | TOTAL | | 3,345.5 | |
| Shrewsbury Ave | Rt/Lt | 20.1 | R&R concrete median/ island (see Item No. 608-10.90) | 405-30.10 | | туре ч | | |
| sbury Ave / Lansdowne Ave | Rt/Lt | 7.6 | R&R 6" paved approach (see Item No. 608-50.96) | | Ex | | ties to be determined by the Engineer. | |
| sbury Ave / Lansdowne Ave | Rt / Lt | 12.2 | R&R 6" sidewalk (see Item No. 608-60.96) | | LOCATION | FROM | TO QUANTITY | REMARKS |
| | | | | | | | <u>TON (0.1)</u> | |
| TOTAL | | 626.1 | |] | Laclede Gas entrance Laclede Gas entrance | Lt Lt | 5.0 | overlay drive approach; (11' x 34', 2" thick); opposite 4117 |
| | | AGGREGATE (4" THICK) | | 1 | | <u>LT</u> | 4.8 | overlay drive approach; (11' x 33', 2" thick); opposite 4113 |
| For use under 8" concrete b | ases, asphalt base repairs, 6" sid SIDE | dewalks, paved approaches, QUANTITY | , transverse joint repairs, and concrete medians. REMARKS | | TOTAL | | 9.8 | |
| | <u>(Rt / Lt)</u> | <u>S.Y.(0.1)</u> | | 405-30.20 | | TYPE " | D" BITUMINOUS CONCRETE (PAVI | EMENT) |
| Shrewsbury Ave | Rt / Lt | 160.7 f | for D&D &" concrete have (ass them No. 200 40.00) | | | act locations & quantit | ies to be determined by the Engineer. | Estimated at 2.16 T/CY. |
| | | | for R&R 8" concrete base (see Item No. 309-10.08) for R&R 8" concrete base (see Item No. 309-11.38) | | LOCATION | SIDE (Rt / Lt) | QUANTITY TON (0.1) | REMARKS |
| Lansdowne Ave | Rt/Lt | 1627.0 f | for Type "X" asphalt base repair (see Item No. 405-30.30) | | 7500 0:- 01 (//=0) | | | |
| | | | | | 7500 Big Bend (KFC) 4009 Shrewsbury | Rt Rt | <u>3.4</u> 0.8 | overlay drive approach; (40' x 8.5', 1.5" thick) overlay drive approach; (13' x 6', 1.5" thick) |
| Shrewsbury Ave | Rt/Lt | 180.8 f | for R&R concrete median/ island (see Item No. 608-10.90) | | 4015 - 4101 Shrewsbury | Rt | 1.8 | overlay drive approach; (30' x 6', 1.5" thick) |
| sbury Ave / Lansdowne Ave | Rt/Lt | 68.2 f | for R&R 6" paved approach (see Item No. 608-50.96) | | 4103 - 4105 Shrewsbury 4105 Shrewsbury | Rt Rt | <u> </u> | overlay drive approach; (28' x 6', 1.5" thick) overlay drive approach; (17' x 6', 1.5" thick) |
| sbury Ave / Lansdowne Ave | Rt/Lt | 110.0 f | for R&R 6" sidewalk (see Item No. 608-60.96) | | 4107 Shrewsbury 4111 Shrewsbury | Rt Pt | 0.7 | overlay drive approach; (13' x 5.5', 1.5" thick) |
| | | | | | 4111 Shrewsbury 4113 Shrewsbury | Rt Rt | | overlay drive approach; (18' x 6', 1.5" thick) overlay drive approach; (13' x 6', 1.5" thick) |
| Shrewsbury Ave | Rt / Lt | | for transverse joint repair (see Item No. 613-10.17) | | 4115 Shrewsbury | Rt | 0.9 | overlay drive approach; (15' x 6', 1.5" thick) |
| | | 52.0 f | for transverse joint repair (see Item No. 613-10.90) | | 4117 Shrewsbury 4119 Shrewsbury | Rt Rt | | overlay drive approach; (15' x 6', 1.5" thick) overlay drive approach; (23' x 6', 1.5" thick) |
| TOTAL | | 2,801.2 | |] | 3917 Shrewsbury | Rt | 1.7 | overlay drive approach; (28' x 6', 1.5" thick) |
| | | ASE (8" NON-REINFORCE | :D) | | 3920 Shrewsbury Ave (Overhead Door Co.) Lansdonwne Ave at Shrewsbury Ave | Lt Lt | | overlay drive approach; (27' x 10', 1.5" thick) overlay shoulder along 4400 Shrewsbury; (100' x 4', 1" thick |
| LOCATION | As dire | ected by the Engineer. QUANTITY | REMARKS | | 7326 Lansdowne | Rt | 1.0 | overlay drive approach; (12' x 8', 1.5" thick) |
| | <u>(Rt / Lt)</u> | <u>S.Y.(0.1)</u> | KEMARKS | | 7324 Lansdowne | Rt | 1.5 | overlay drive approach; (17' x 9', 1.5" thick) |
| 4111 Shrewsbury | Rt | 16.0 | (12' x 12'); located in through lane | | TOTAL | | 24.1 | |
| 4113 Shrewsbury | Rt | | (12' x 12'); located in curb lane | 405-30.30 | | ТҮР | E "X" BITUMINOUS CONCRETE (B/ | (SE) |
| 7502 Arlington | Rt | | (12' x 9'); located in through lane | | | act locations & quantit | ies to be determined by the Engineer. | Estimated at 2.16 T/CY. |
| 7502 Arlington 7502 Arlington | Rt Rt | | (18' x 9'); located in curb lane (13' x 6'); located in curb lane | | LOCATION | SIDE (Rt / Lt) | QUANTITY <u>TON (0.1)</u> | REMARKS |
| 7505 Shrewsbury | Rt | 32.0 (| (12' x 24'); located in through lane | | | | | |
| 7500 Lansdowne Murdoch (office building) | Rt Rt | | (12' x 10'); located in curb lane (15' x 11'); located in through lane | | 7420 Lansdowne 7420 Lansdowne | Rt Lt | | asphalt base repair (shoulder), (9' x 50', 8" thick) asphalt base repair (shoulder), (7' x 60', 8" thick) |
| nrewsbury at Arlington | Lt | 15.6 (| (10' x 14'); located in curb lane | | 7418 Lansdowne | Lt | | asphalt base repair (shoulder), (7' x 60', 8" thick) asphalt base repair (drive lane), (15' x 36', 8" thick) |
| aclede Gas Complex aclede Gas Complex | Lt Lt | | (12' x 30'); located in curb lane (opposite 7504 Suffolk) (15' x 12'); located in through lane (opposite 7504 Suffolk) | | 7416 Lansdowne 7414 Lansdowne | Rt Rt | 21.6 | asphalt base repair (shoulder), (9' x 45', 8" thick) |
| aclede Gas Complex | Lt | | (15' x 12'); located in curb lane (opposite 7504 Suffolk) | | 7414 Lansdowne 7408 Lansdowne | Rt | | asphalt base repair (drive lane), (15' x 63', 8" thick) asphalt base repair (shoulder), (9' x 60', 8" thick) |
| TOTAL | | 233.9 | | | 7412 Lansdowne | Lt D+ | 50.4 | asphalt base repair (drive lane), (15' x 63', 8" thick) |
| | | | |]. | 7404 Lansdowne 7402 Lansdowne | Rt Lt | | asphalt base repair (drive lane), (12' x 70', 8" thick) asphalt base repair (shoulder), (9' x 30', 8" thick) |
| ** | an a | CONCRETE MIXTURE SP | | | 7340 Lansdowne | Rt | 21.6 | asphalt base repair (drive lane), (9' x 45', 8" thick) |
| LOCATION | ct locations & quantities to be de FROM T | <u>O</u> QUANTITY | Estimated at 2.16 17CY. REMARKS | | 7336 Lansdowne 7324 Lansdowne | Lt Rt | | asphalt base repair (drive lane), (15' x 63', 8" thick) asphalt base repair (drive lane), (15' x 60', 8" thick) |
| | | <u></u> | | | 7324 Lansdowne | Lt | 96.0 | asphalt base repair (drive lane), (15' x 120', 8" thick) |
| Shrewsbury Ave | Big Bend Blvd Murdo | och Ave 110.0 F | For use in spot wedging | | 7318 Lansdowne 7312 Lansdowne | Lt Lt | | asphalt base repair (drive lane), (15' x 55', 8" thick) asphalt base repair (drive lane), (15' x 45', 8" thick) |
| | | | . ~ ~ | | 7312 Lansdowne | Lt | | asphalt base repair (drive lane), (15' x 45', 8" thick) asphalt base repair (drive lane), (15' x 75', 8" thick) |
| TOTAL | | 110.0 | | | 7310 Lansdowne 7308 Lansdowne | Rt Rt | 12.0 | asphalt base repair (drive lane), (15' x 15', 8" thick) |
| | | | | | 7308 Lansdowne 7306 Lansdowne | Lt | | asphalt base repair (drive lane), (15' x 33', 8" thick) asphalt base repair (drive lane), (15' x 60', 8" thick) |
| | | | | | Lansdowne at St. Vincent Ave | Lt | 44.0 | asphalt base repair (drive lane), (15' x 55', 8" thick) |
| | | | | | Murdoch Cutoff right turn lane | Rt | 9.0 | asphalt base repair (drive lane), (21' x 8', 8" thick) |
| | | | | | | (1) こうしょう しんしょう ひかく となっただいがくしょうだいがく | コール・ション・ション コー・ション・アンマーング・ショング かかい シー・デジャー かかしょう | n en |
| ER 309-10.08 CONCRET | BASE (8" NON-REINEC | | MENT W/ ACCELERATOR 85 SACK | | TOTAL | | 781.0 | |
| R 309-10.08, CONCRETE EPLACED WITH ITEM NO | E BASE (8" NON-REINFO D. 509-10.08, CONCRETI | DRCED), TYPE III CEN E BASE (8" NON-REIN | MENT W/ ACCELERATOR, 8.5 SACK NFORCED), VERY EARLY STRENGTH | | TOTAL | | 781.0 | |

| LOCATION | Estimated at 0.10 | Gal / S.Y. | DEMADIZO | | LOCATION | Exact locations SIDE | & quantities to be determined by th QUANTITY | |
|--|--|------------------------|--|-----------|---|---|---|---|
| LOCATION | FROM TO | <u>GAL. (10)</u> | | | LOCATION | <u>(Rt / Lt)</u> | EACH | REMARKS |
| Shrewsbury Ave | Big Bend Blvd I-44 (End of Maint.) | 1,167 | mainline pavement north of I-44 | | Shrewsbury Ave at Suffolk Ave | Rt | 1 | center turn lane |
| Cincwebery / we | | 19 | approach at Suffolk Ave | | Shrewsbury Ave at Arlington Ave | Rt | 2 | |
| | | 37 | approach at Arlington Ave | | Shrewsbury at Sutherland 4401 Shrewsbury | Rt Rt | 2 | |
| | I-44 (End of Maint.) Murdoch Ave | 768 23 | mainline south of I-44; includes approaches at Murdoch Ave approaches at Sutherland Ave (117 SY each) | | Shrewsbury at Devonshire | Rt | | |
| | | 31 | approaches at Lansdowne Ave | | 4605- 4607 Shrewsbury | Rt | 1 | |
| | | 16 | approaches at Devonshire Ave | | Shrewsbury at Murdoch 4400 Shrewsbury (Police Station) | Lt It | 2 1 | located in northest quadrant |
| Lansdowne Ave | Shrewsbury St. Vincent Ave | 514 | mainline; does not include approaches at Shrewsbury Ave | | Lansdowne Ave | Rt/Lt | 6 | all locations along CL of Lansdowne |
| | | 13 | side street (St. Vincent Ave). | | Lansdowne Ave at Shrewsbury Ave | Lt | 1 | in right turn lane at double curb Inlet |
| | | 25 | for driveway overlays | | Shrewsbury NE of Carr Lane Shrewsbury at Big Bend | | 1 | located in left turn lane to southbound Big Bend |
| Lansdowne Ave | St. Vincent Ave City Limits (EOM) | 142 | mainline; does not include approach at Murdoch Cutofff | | Shrewsbury at Big Bend | Lt | 1 | located in through lane opposite KFC entrance |
| | | 59 | approach at Mudoch Cutoff | | TOTAL | | 21 | |
| Shrewsbury Ave | Big Bend Blvd I-44 (End of Maint.) | 24 | for overlaying drive approaches | | | | | |
| Shrewsbury Ave | Big Bend Blvd Murdoch Ave | 260 | for spot wedging | 604-21.95 | | | EPLACE PRECAST INLET TOP & quantities to be determined by the | e Engineer |
| Sillewsbuly Ave | | 200 | | | LOCATION | SIDE | QUANTITY | REMARKS |
| TOTAL | | 3,100 | (rounded up to nearest 10 gal.) | | | <u>(Rt / Lt)</u> | EACH | |
| | PAVEMENT SURFACING AND TEXTURING | 6 (0" - 2"), COI | ICRETE OR ASPHALT | | Shresbury Ave at Big Bend | Rt | 2 | located in southwest radius |
| Α | pproximately 2" depth. Includes butt joints and | d side streets a | s directed by the Engineer. | | 7424 Lansdowne | Rt | 2 | |
| LOCATION | FROM <u>TO</u> | QUANTITY S.Y. (1.0) | REMARKS | | Lansdowne Ave at St. Vincent Ave | Lt | 2 | located in northwest radius |
| | | | | | TOTAL | | 6 | |
| Shrewsbury Ave | Big Bend Blvd I-44 (End of Maint.) | 11,670 187 | mainline pavement north of I-44 approach at Suffolk Ave | 604-90.40 | | ٩ | DJUST INLET STONE TO GRADE | |
| | | 372 | approach at Arlington Ave | | | Exact locations | & quantities to be determined by the | ne Engineer. |
| | I-44 (End of Maint.) Murdoch Ave | 7,677 | mainline south of I-44; includes approaches at Murdoch Ave | | LOCATION | SIDE (Pt / Lt) | QUANTITY | REMARKS |
| | | 305 | approaches at Sutherland Ave (117 SY each) approaches at Lansdowne Ave | | | <u>(Rt / Lt)</u> | EACH | |
| | | 156 | approaches at Devonshire Ave | | 7424 Devonshire | Lt | 1 | |
| Lansdowne Ave | Shrewsbury St. Vincent Ave | 5,141 | mainline; does not include approaches at Shrewsbury Ave | | TOTAL | | 1 | |
| | | 129 | side street (St. Vincent Ave). | | 1 | | | |
| Lonadouro Auc | St. Vincent Ave City Limits (EOM) | 1,422 | mainline; does not include approach at Murdoch Cutofff | 604-90.50 | | a de la completa de l | ECAST INLET TOP AND ADJUST & quantities to be determined by the | |
| Lansdowne Ave | St. Vincent Ave City Limits (EOM) | 586 | approach at Mudoch Cutoff | | LOCATION | SIDE | QUANTITY | REMARKS |
| | | | | | | <u>(Rt / Lt)</u> | EACH | |
| Shrewsbury Ave | Big Bend Blvd I-44 (End of Maint.) | 238 | for overlaying drive approaches | | Shrewsbury Ave at Suffolk Ave | Rt | 1 | southwest corner |
| TOTAL | | 28,117 | | | 4105 Shrewsbury Ave | Rt | 2 | |
| | SIDEWALK GF | RINDING | | | 4400 Shrewsbury (Police Station) | Lt. | 1 | |
| | Exact locations & quantities to be c | | i de la company de | | TOTAL | | 4 | |
| LOCATION | SIDE (Rt / Lt) | QUANTITY (EACH) | REMARKS | 604-90.52 | | | REPLACE INLET SILL | |
| | | | | | | | & quantities to be determined by t | |
| Shrewsbury Ave / Lansdowne Ave | Rt/Lt | 100 | | | LOCATION | SIDE (<u>Rt / Lt)</u> | QUANTITY EACH | REMARKS |
| TOTAL | | 100 | | | | (107 = 9 | | |
| | CONCRETE BASE (8" NON-REINFORC | | | | 4105 Shrewsbury Ave 7424 Lansdowne | Rt Rt | 1 | |
| | As directed by the | | | | | FN | ۷. | |
| LOCATION | SIDE | QUANTITY | REMARKS | | TOTAL | | 3 | |
| | (Rt / Lt) | <u>S.Y.(0.1)</u> | | 608-10.90 | | REMOVE & | REPLACE CONCRETE MEDIAN | / ISLAND |
| ewsbury Ave at BNSF Rail Overpass | | 36.0 | (27' x 12'); located in curb lane | | | ntities to be determined b | by the Engineer. Incudes removal o | f exisitng island, sawcutting, and dowel bars |
| ewsbury Ave at BNSF Rail Overpass 4500 Shrewsbury | Lt Lt | <u>36.0</u> 8.7 | (27' x 12'); located in through lane (13' x 6'); located in curb lane | | LOCATION | SIDE (Rt / Lt) | QUANTITY S.Y. (0.1) | REMARKS |
| 7404 Sutherland | Lt | 40.0 | (30' x 12'); located in curb lane | | | | | |
| 7404 Sutherland | Lt | 40.0 | (36' x 10'); located in curb lane | | Shrewsbury Ave at BNSF Rail Overpass | Rt/Lt Rt | 153.9 26.9 | between Arlington Ave and I-44 |
| TOTAL | | 160.7 | | | Shrewsbury Ave at Murdoch Ave | N | 20.9 | northwest quadrant; rebuild as 3-leg cut through island |
| | | ALVE DOY TO | CPADE | | TOTAL | | 180.8 | |
| | ADJUST WATER SERVICE V Exact locations & quantities to be c | | | 608-50.96 | | REMOVE | E & REPLACE PAVED APPROAC | :H (6") |
| LOCATION | SIDE | QUANTITY | | | | Exact locations & quantitie | es to be determined by the Engine | er. Includes sawcutting |
| | (Rt / Lt) | EACH | | | LOCATION | SIDE (<u>Rt / Lt)</u> | QUANTITY S.Y. (0.1) | REMARKS |
| 7402 Lansdowne | Rt | 1 | | | | | | |
| 7330 - 7326 Lansdowne | Rt | 1 | | | 3917 Shrewsbury 4009 Shrewsbury | Rt Rt | | drive approach to garage (30' x 5.5') |
| 7403 Lansdowne | Lt | | | | 4009 Shrewsbury 4111 Shrewsbury | Rt | 9.3 | (6' x 14') (18' x 6') |
| TOTAL | | 3 | | | 7409 Lansdowne | Lt | 8.0 | (4.5' x 16') |
| | | | | | 7403 Lansdowne 7326 Lansdowne | Lt Rt | <u> </u> | (5' x 11') (4.5' x 15') |
| | | | | | 7324 Lansdowne | Rt | 7.0 | (4.5' x 14') |
| | | | | | TOTAL | | 68.2 | |
| | | | | | | (a) A second s second second s Second second secon second second sec | e e la companya de la | ▲ 「「」」、「」」、「」」、「」、「」、「」、」、「」、「」、「」、「」、「」、「 |

| 8-60.08 | | CONCRE | TE SIDEWALK, CURB RAN | IP | | | | | | |
|---------|--|----------------------|--------------------------------|-------------------------------------|--|--|--|--|--|--|
| | For curb ramp reconstruction. Includes all items as described in Special Provision 100.20.9 and sawcutting as needed | | | | | | | | | |
| | | Exact locations & qu | antities to be determined by t | he Engineer. | | | | | | |
| | LOCATION | SIDE | QUANTITY | REMARKS | | | | | | |
| | | <u>(Rt / Lt)</u> | (EACH) | | | | | | | |
| | Shrewsbury at Big Bend | Rt | 1 | | | | | | | |
| | | Lt | 1 | | | | | | | |
| | Shrewsbury at Suffolk Ave | Rt | 2 | | | | | | | |
| | Shrewsbury at Arlington Ave | Rt | 2 | | | | | | | |
| | Shrewsbury at Sutherland Ave | Rt | 2 | | | | | | | |
| | | Lt | 1 | | | | | | | |
| | Shrewsbury at Lansdowne Ave | Rt | 2 | | | | | | | |
| | Shrewsbury at Devonshire Ave | Rt | 2 | | | | | | | |
| | | Lt | 2 | | | | | | | |
| | Shrewsbury at Murdoch Ave | Rt | 2 | | | | | | | |
| | | Lt | 2 | | | | | | | |
| | Lansdowne at St. Vincent Ave | Lt | 2 | | | | | | | |
| | Lansdowne at Murdoch Cutoff | Rt | 1 | SW corner (at American Legion Hall) | | | | | | |
| | | Rt | 3 | Island (3-leg cut-through) | | | | | | |
| | | Rt | 1 | SE corner (at gas station) | | | | | | |
| | | | 1 | | | | | | | |
| | TOTAL | | 27 | | | | | | | |

| A second s | | REMOVE & RE | PLACE CONCRETE SIDEWALK | (4" THICK) | | AR-1388 |
|--|---|--|--|--|-----------|--|
| | LOCATION | Exact locations & quantities | to be determined by the Engineer QUANTITY | . To include sawcutting. REMARKS | | FEDERAL PROJECT STP-4901(635 |
| | | <u>(Rt / Lt)</u> | <u>S.Y. (0.1)</u> | | | E-W GATEWAY TIP 5562-14 |
| | 7500 Big Bend (KFC) | Rt | 2.7 | 6' x 4' | | MSD: N/A |
| | 3917 Shrewsbury / 7501 Suffolk 7504 Suffolk | Rt Rt | <u> </u> | 20' x 4' 15' x 4' | | MSD BASE MAP: |
| | 4009 Shrewsbury | Rt | 4.4 | 10' x 4' | | J-22, J-23 |
| | 4015 Shrewsbury 4101 Shrewsbury | Rt Rt | 4.4 | 10' x 4' 5' x 4' | | 5 |
| F | 4103 Shrewsbury 4105 Shrewsbury | Rt Rt | <u>2.2</u> 4.4 | 5' x 4' 10' x 4' | | NOI NOI |
| | 4111 Shrewsbury | Rt | 6.7 | 15' x 4' | | SIONS DESCRIPTION ADDENDUM NC |
| | 4113 Shrewsbury 4121 Shrewsbury | Rt Rt | 6.7 | 15' x 4' 10' x 4' | | |
| | 7502 Arlington | Rt | 20.0 | 45' x 4' | | |
| | 4401 Shrewsbury 4405 Shrewsbury | Rt Rt | <u> </u> | 12' x 5' 116' x 4' | | KEV |
| | 7505 Lansdowne | Rt | 10.0 | 18' x 5' | | APF |
| | 7501 Devonshire 7501 Murdoch | Rt Rt | 2.2 | 5' x 4' 5' x 20' | | В |
| | 7419 Murdoch (apartment building) | Lt | 17.8 | (25' x 4') + (10' x 6') | | JATE |
| | 7424 Devonshire 4508 Shrewsbury | | 20.0 | 30' x 6' 5' x 4' | | |
| | 4500 Shrewsbury | Lt | 8.3 | 15' x 5' | | |
| | 4500 Shrewsbury (police station) 7404 Sutherland (parking lot) | Lt Lt | 11.1 5.6 | 5' x 20' 5' x 10' | | her be be be be be be be be be be be be be |
| F | 4500 Shrewsbury (Lansdowne side) | Rt | | 6' x 4' | | A light of the sea of |
| | 7424 Lansdowne | Rt | | 8' x 4' | | Alminic transformed by a sector of the secto |
| T T | 7422 Lansdowne 7418 Lansdowne | Rt Rt | 2.7 2.7 | 6' x 4' 6' x 4' | | DISC DISC Treby 5 Treby 5 Treby 6 Tred to ted |
| ļ | 7414 Lansdowne | Rt | 2.7 | 6' x 4' | | Her limit addo |
| | 7412 Lansdowne 7408 Lansdowne | Rt Rt | <u>2.7</u> 6.2 | 6' x 4' 14' x 4' | | TE OF MISSO |
| | 7402 Lansdowne | Rt | 5.3 | 12' x 4' | | S * DANIEL JOSEPH |
| | 7340 Lansdowne 7334 Lansdowne | Rt Rt | <u>5.3</u> 2.7 | 12' x 4' 6' x 4' | \square | FAUKE |
| | 7326 Lansdowne | Rt | 2.7 | 6' x 4' | V | PE-2007092782 |
| | 7324 Lansdowne 7320 Lansdowne | Rt Rt | <u> </u> | 14' x 4' 6' x 4' | | AROFESSION |
| | 7318 Lansdowne | Rt | 2.7 | 6' x 4' | | DATE: |
| | 7316 Lansdowne 7312 Lansdowne | Rt Rt | 2.7 | 6' x 4' 6' x 4' | | May 16, 2 |
| | 7306 Lansdowne | Rt | 2.7 | 6' x 4' | | D. |
| | Lansdowne at Murdoch Cutoff 7250 Lansdowne (gas station) | Rt Rt | | 24' x 4' 21' x 4' | | VISION RGH BLVD. OURI 63132 -8543 |
| | 7307 Lansdowne 7311 Lansdowne | Lt Lt | 5.3 5.3 | 12' x 4' 12' x 4' | | |
| | 7313 Lansdowne | Lt | | 12 x 4 6' x 4' | | BY: GN D MIS: 4) 61: |
| | 7317 Lansdowne 7401 Lansdowne | Lt Lt | 8.0 5.3 | 18' x 4' 12' x 4' | | REPARED BY: DESIGN D 1050 N. LINDBI ST. LOUIS, MIS (314) 615 |
| | 4400 Shrewsbury (park) | Li | 60.0 | 135' x 4' | | REPARED BY: DESIGN DI 1050 N. LINDBE ST. LOUIS, MISS (314) 615 |
| | The following locat | ions of R&R 4" Sidewalk a | re intended for use in curb ramp re | construction as directed by the Engineer. | | |
| | Assumes on LOCATION | e 5'x 5' and one 5' x 4.5' sl SIDE | ab (5.3 SY) at each location new c QUANTITY | urb ramps tie to existing sidewalks. | | |
| | | <u>(Rt / Lt)</u> | <u>S.Y. (0.1)</u> | | | 6. TRAFFI |
| | Shrewsbury at Big Bend | Rt | 10.6 | | | |
| | | Lt | 10.6 | | | Soint DOU HWAYS PUBLIC |
| 442.434 | Shrewsbury at Suffolk Ave Shrewsbury at Arlington Ave | Rt Rt | 15.9 10.6 | 10.6 SY (NW corner) + 5.3 SY (SW corner) 5.3 SY each corner | | Saint HIGHWAYS PUBLIC |
| | | Rt | 15.9 | 5.3 SY (NW corner) + 10.6 SY (SW corner) NE corner | | |
| | Shrewsbury at Sutherland Ave | and the second | 방법 : 한번 2018년 2019년 1월 2019년 1919년 1716 년 1719년 | ne web and the rest which is the second of the second provide second provide a final state of the providence of | | |
| | Shrewsbury at Lansdowne Ave | Lt Rt | 10.6 | 5.3 SY each corner | | |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave | Lt Rt Lt | 10.6 5.3 | 5.3 SY each corner SW corner | | Lun |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave | Lt Rt Lt Rt Lt | 10.6 5.3 15.9 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner | | ENUE JRE ITIES |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | AVENUE - AVENUE CTURE |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave Lansdowne at Murdoch Cutoff | Lt Rt Lt Rt Lt | 10.6 5.3 15.9 10.6 5.3 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner | | |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave Lansdowne at Murdoch Cutoff | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave Lansdowne at Murdoch Cutoff | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | WSBURY A SDOWNE A FRASTRUC |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave Lansdowne at Murdoch Cutoff | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave Lansdowne at Murdoch Cutoff | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | SHREWSBURY A LANSDOWNE A INFRASTRUC |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave Lansdowne at Murdoch Cutoff | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave Lansdowne at Murdoch Cutoff | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | CETANE COLORIAL |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave Lansdowne at Murdoch Cutoff | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | CALEWSBURY A LANSDOWNE A INFRASTRUC DETAILED OLLAR |
| | Shrewsbury at Lansdowne Ave Shrewsbury at Devonshire Ave Shrewsbury at Murdoch Ave Lansdowne at St. Vincent Ave Lansdowne at Murdoch Cutoff | Lt Rt Lt Rt Lt Lt Rt Rt Lt Rt Rt Lt Rt Rt Lt Rt Lt Rt | 10.6 5.3 15.9 10.6 5.3 10.6 | 5.3 SY each corner SW corner 5.3 SY (NW corner) + 10.6 SY (SW corner) 5.3 SY each corner SW corner (at American Legion Hall) | | CALLEWSBURY A CANSDOWNE A LANSDOWNE A INFRASTRUC DETAILED DIA |

| 100170 | Exact locations & quantities to be o | E CONCRETE SIDEWALK (6" THICK) determined by the Engineer. To include sawcutting. | 609-20.90 | | ns & quantities to be | | ngineer. To ir | IGHT AND UNDER) Iclude sawcutting and aggregate base. |
|--|--|---|-----------|---|---|---|--|--|
| LOCATION | SIDE (<u>Rt / Lt</u>) | QUANTITY REMARKS S.Y. (0.1) | | LOCATION | SIDE (<u>Rt / Lt)</u> | | QUANTI | |
| 4045 Ch | Rt | | | 7500 Lansdowne | | | 12 | |
| 4015 Shrewsbury 4111 Shrewsbury | Rt | 8.9 20' x 4' 7.1 16' x 4' | | 4500 Shrewsbury (at Lansdowne) | Rt Lt | | 12 | for concrete base replacement for concrete base replacement |
| 7500 Lansdowne | Rt | 3.6 8' x 4' | | 7404 Sutherland | Lť | | 36 | for concrete base replacement |
| Shrewsbury (Lansdowne side) 7424 Lansdowne | Rt Rt | 12.0 27' x 4' 5.3 12' x 4' | | 7404 Sutherland4118 Carr Lane (opposite 7504 Suffolk) | Lt Lt | | 30 42 | for concrete base replacement for concrete base replacement; 3 sections (15' + 15' + 12') |
| 7422 Lansdowne | Rt | 6.7 15' x 4' | | 4118 Carr Lane (opposite Arlington Ave.) | Lt | | 10 | for concrete base replacement |
| 7418 Lansdowne | Rt | 4.4 10' x 4' | | Shrewsbury at Suffolk | Rt | | 6 | for joint repair |
| 7412 Lansdowne 7404 Lansdowne | Rt | 2.7 6' x 4' 6.7 15' x 4' | | 7502 Suffolk 4117 Shrewsbury | Rt Rt | | <u>12</u> 6 | for joint repair for joint repair |
| 7402 Lansdowne | Rt | 4.4 10' x 4' | | 4121 Shrewsbury | Rt | | 6 | for joint repair |
| 7340 Lansdowne | Rt | 2.7 6' x 4' | | Shrewsbury at Arlington | Rt | | 6 | for joint repair |
| 7330 Lansdowne 7326 Lansdowne | Rt | 2.7 6' x 4' 6.7 15' x 4' | | 7502 Arlington 4405 Shrewsbury | Rt Rt | | 6 6 | for joint repair for joint repair |
| 7318 Lansdowne | Rt | 6.2 14' x 4' | | Shrewsbury Ave at BNSF Rail Overpass | Lt | | 6 | for joint repair |
| 7310 Lansdowne | Rt | 2.7 6' x 4' 2.7 6' x 4' | | 4118 Carr Lane (opposite 4115 Shrews.) 4118 Carr Lane (opposite 4107 Shrews.) | Lt Lt | | 6 | for joint repair for joint repair |
| 7306 Lansdowne 50 Lansdowne (gas station) | Rt | 2.7 6 X 4 3.3 6' x 5' | | 4118 Carr Lane (opposite 4107 Shrews.) 4118 Carr Lane (opposite 4101 Shrews.) | <u>-</u> | | 6 | for joint repair |
| 7307 Lansdowne | Lt | 8.0 18'x 4' | | 4118 Carr Lane (opposite 4009 Shrews.) | Lt | | 6 | for joint repair |
| 7321 Lansdowne 7323 Lansdowne | | 2.7 6' x 4' 8.0 18' x 4' | | 4118 Carr Lane (opposite 7504 Suffolk) 4118 Carr Lane (opposite 7502 Suffolk) | Lt Lt | | 6 | for joint repair for joint repair (2 - 6' sections) |
| 7401 Lansdowne | | 2.7 6' x 4' | | 4118 Carr Lane (opposite 7502 Suffolk)4118 Carr Lane (opposite Suffolk Ave) | Lt | | 6 | for joint repair (2 - 6' sections) for joint repair |
| *** | | | | 4400 Shrewsbury (police station) | Lt | | 12 | for joint repair (2 - 6' sections) |
| TOTAL | | 110.2 | | TOTAL | | | 257 | |
| | | OR CURB RAMPS (New Construction) | | | | 4 | | |
| Exact lo LOCATION | cations & quantities to be determine SIDE | d by the Engineer. To include sawcutting & thickened areas. QUANTITY REMARKS | 612-60.92 | | aina any daga any daga ang daga ang ang ang ang ang daga ang ang ang ang ang ang ang ang ang | V PANEL, TYPE "B" ons & quantities to be | | and a standard and a second developments of the second of th |
| <u>LVAIIVN</u> | (Rt / Lt) | <u>S.F. (1)</u> | | LOCATION | SIDE | ี่ | QUANTI | |
| | | | | | <u>(Rt / Lt)</u> | | EACH | |
| Shrewsbury at Murdoch | Rt | 30 for island reconstruction, northwest quadrant; 3 - 2' x 5' | | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | | 4 | |
| TOTAL | | 30 | | | | | | |
| | CURR & G | UTTER, MOUNTABLE (6") | | TOTAL | | 1 | 4 | |
| | ct locations & quantities to be determ | nined by the Engineer. To include sawcutting as needed. | 613-10.18 | | JOINT REF | PAIR - TRANSVERSI | E, HIGH EAR | LY STRENGTH |
| LOCATION | SIDE (Dt / 1 t) | QUANTITY REMARKS | | بالأس محتمية أستناب المستحد الأربي المحتم الأربي المحتمة المتحالية أسترمانية محتمية أستند مشروبة والمتحالية المحتم ا | and a second | | | s all items as described in JSP 1100.70.8 |
| | <u>(Rt / Lt)</u> | <u>L.F. (1)</u> | | LOCATION | SIDE (Rt / Lt) | DIMENSIONS (L.F. x L.F.) | QUANTI <u>S.Y. (0.</u> | |
| wne east of Shrewsbury (park) | Lt | 200 for shoulder upgrades | | | | | | |
| TOTAL | | 200 | | Shrewsbury at Suffolk | Rt Pt | 11'x 6' | 7.3 | located at SW radius in curb lane; also R&R 6 LF integral curb |
| | | | ······ | 7502 Suffolk 4009 Shrewsbury | Rt Rt | 2- (11' x 6') 12' x 6' | 14.7 8.0 | 2 sections; located in curb lane; also R&R 12 LF integral curb located in turn lane |
| | | TER (VARIOUS WIDTHS), VERTICAL, MOUNTABLE ude sawcutting, excavation, and aggregate base. Includes R&R of entire C&G sectio | 6 | 4101 Shrewsbury | Rt | 12' x 6' | 8.0 | located in through lane |
| LOCATION | SIDE | QUANTITY REMARKS | | 4105 Shrewsbury 4117 Shrewsbury | Rt Rt | 12' x 6' 12' x 6' | 8.0 | located in through lane located in curb lane; also R&R 6 LF integral curb |
| | (Rt / Lt) | L.F. (1) | | 4117 Shrewsbury 4117 Shrewsbury | Ri Rt | 12 x 6' | 8.0 | located in through lane |
| | n de la servición de la companya de la companya de la servición de la servición de la servición de la servición | en ander stern auf de stern de staten inder stern die estren verben aus stern het die estre in hilf die estre i | | 4121 Shrewsbury | Rt | 12' x 6' | 8.0 | located in curb lane; also R&R 6 LF integral curb |
| 7502 Suffalk | | 25 | | the second se | Rt | 12' x 6' | (a) (a) (a) (b) (b) (a) (b) (a) (b) (b) (b) (b) (b) (b) (b) (b) (b) (b | located in curb lane; also R&R 6 LF integral curb |
| 7502 Suffolk 4111 Shrewsbury | Rt Rt | 25 12 | | Shrewsbury at Arlington 7502 Arlington | Rt | a na manana manana manana na manana mana | 8.0 | located in curb lane: also R&R 6 I F integral curb |
| 4111 Shrewsbury 4115 Shrewsbury | Rt Rt Rt | 12 12 | | 7502 Arlington 4405 Shrewsbury | Rt Rt | 12' x 6' 11' x 6' | 8.0 7.3 | located in curb lane; also R&R 6 LF integral curb located in turn lane |
| 4111 Shrewsbury 4115 Shrewsbury 4117 Shrewsbury | Rt Rt Rt Rt Rt | 12 | | 7502 Arlington 4405 Shrewsbury 4405 Shrewsbury | Rt Rt Rt | 12' x 6' 11' x 6' 11' x 6' | 8.0 7.3 7.3 | located in turn lane located in curb lane; also R&R 6 LF integral curb |
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| | SIDE | ties to be determined by the Enginee QUANTITY | | | LOCATION | SIDE | | | le sawcutting and aggregate base. REMARKS |
|---|--|--|--|--|--|--|---|---|--|
| | <u>(Rt / Lt)</u> | <u>S.Y. (0.1)</u> | | | | <u>(Rt / Lt)</u> | | L.F. (1) | |
| | Pt | | 20' x 4' | | 7500 Lansdowne | Dı | | 40 | |
| 4015 Shrewsbury 4111 Shrewsbury | Rt Rt | <u>8.9</u> 7.1 | 20' x 4' 16' x 4' | | 4500 Shrewsbury (at Lansdowne) | Rt Lt | | 12 13 | for concrete base replacement for concrete base replacement |
| 7500 Lansdowne | Rt | 3.6 | 8' x 4' | | 7404 Sutherland | Lt Lt | | 36 | for concrete base replacement |
| 500 Shrewsbury (Lansdowne side) | Rt | 12.0 | 27' x 4' | | 7404 Sutherland | Lŧ | | 30 | for concrete base replacement |
| 7424 Lansdowne | Rt | 5.3 | 12' x 4' | | 4118 Carr Lane (opposite 7504 Suffolk) | Lt | | | for concrete base replacement; 3 sections (15' + 15' + 12') |
| 7422 Lansdowne | Rt | 6.7 | 15' x 4' | | 4118 Carr Lane (opposite Arlington Ave.) | | | 10 | for concrete base replacement |
| 7418 Lansdowne 7412 Lansdowne | Rt Rt | 4.4 | 10' x 4' 6' x 4' | | Shrewsbury at Suffolk 7502 Suffolk | Rt Rt | | 6 12 | for joint repair for joint repair |
| 7404 Lansdowne | Rt | 6.7 | 15'x4' | | 4117 Shrewsbury | Rt | | 6 | for joint repair |
| 7402 Lansdowne | Rt | 4.4 | 10' x 4' | | 4121 Shrewsbury | Rt | | 6 | for joint repair |
| 7340 Lansdowne | Rt | 2.7 | 6' x 4' | | Shrewsbury at Arlington | Rt | | 6 | for joint repair |
| 7330 Lansdowne | Rt | 2.7 | 6' x 4' | | 7502 Arlington | Rt | | 6 | for joint repair |
| 7326 Lansdowne | Rt | 6.7 | 15' x 4' 14' x 4' | | 4405 Shrewsbury | Rt Lt | | 6 | for joint repair |
| 7318 Lansdowne 7310 Lansdowne | Rt Rt | <u> </u> | 6' x 4' | | Shrewsbury Ave at BNSF Rail Overpass 4118 Carr Lane (opposite 4115 Shrews.) | L. Lt | | 6 | for joint repair for joint repair |
| 7306 Lansdowne | Rt | 2.7 | 6' x 4' | | 4118 Carr Lane (opposite 4107 Shrews.) | Lt | | 6 | for joint repair |
| 7250 Lansdowne (gas station) | Rt | 3.3 | 6' x 5' | | 4118 Carr Lane (opposite 4101 Shrews.) | Lt | | 6 | for joint repair |
| 7307 Lansdowne | Lt | 8.0 | 18' x 4' | | 4118 Carr Lane (opposite 4009 Shrews.) | Lt | | 6 | for joint repair |
| 7321 Lansdowne | Lt | 2.7 | 6' x 4' | | 4118 Carr Lane (opposite 7504 Suffolk) | Ĺŧ | | 6 | for joint repair |
| 7323 Lansdowne 7401 Lansdowne | Lt Lt | 8.0 2.7 | 18' x 4' 6' x 4' | | 4118 Carr Lane (opposite 7502 Suffolk) | L. | a <mark>suurine suurine turine suurine suuri Turine suurine s</mark> | 12 | for joint repair (2 - 6' sections) |
| | | | | | 4118 Carr Lane (opposite Suffolk Ave) 4400 Shrewsbury (police station) | Lt Lt | | 0 12 | for joint repair for joint repair (2 - 6' sections) |
| TOTAL | | 110.2 | | | enterery (peneo station) | | | 14 | ··· · ··· ··· ··· ··· ··· ··· ··· ······ |
| | | | | | TOTAL | | | 257 | |
| | | DOMES FOR CURB RAMPS (New | | | | | | | |
| | SIDE | determined by the Engineer. To incl QUANTITY | | 612-60.92 | | | W PANEL, TYPE "B" (i tions & quantities to be c | | |
| | (Rt / Lt) | S.F. (1) | | | LOCATION | SIDE | | | REMARKS |
| | | | | | | <u>(Rt / Lt)</u> | | EACH | |
| Shrewsbury at Murdoch | Rt | 30 | for island reconstruction, northwest quadrant; 3 - 2' x 5' | | | | | | |
| | | | | | Shrewsbury Ave / Lansdowne Ave | Rt / Lt | | 4 | |
| TOTAL | | | | | TOTAL | | | | |
| | | URB & GUTTER, MOUNTABLE (6 | 9 | | IOTAL | | | 4 | |
| Exact loc | and the second | be determined by the Engineer. To | in in the second s | 613-10.18 | | JOINT RE | PAIR - TRANSVERSE, | HIGH EARLY | STRENGTH |
| LOCATION | SIDE | QUANTITY | REMARKS | | Exact locations & | & quantities to be d | etermined by the Engine | | items as described in JSP 1100.70.8 |
| | <u>(Rt / Lt)</u> | <u>L.F. (1)</u> | | | LOCATION | SIDE | DIMENSIONS | QUANTITY | REMARKS |
| ansdowne east of Shrewsbury (park) | Lt | 200 | for shoulder upgrades | | | <u>(Rt / Lt)</u> | (L.F. x L.F.) | <u>S.Y. (0.1)</u> | |
| | | 200 | | | Shrewsbury at Suffolk | Rt | 11' x 6' | 7.3 | located at SW radius in curb lane; also R&R 6 LF integral curb |
| TOTAL | | 200 | | | 7502 Suffolk | Rt | 2- (11' x 6') | 1.3 | 2 sections; located in curb lane; also R&R 12 LF integral curb |
| | | | | | 4009 Shrewsbury | Rt | 12' x 6' | | located in turn lane |
| | i i i i i i i i i i i i i i i i i i i | RB & GUTTER (VARIOUS WIDTHS |), VERTICAL, MOUNTABLE n, and aggregate base. Includes R&R of entire C&G section. | | 4101 Shrewsbury | Rt | 12' x 6' | 8.0 | located in through lane |
| LOCATION | SIDE | | | | 4105 Shrewsbury | Rt Pt | 12' x 6' | | located in through lane |
| | (Rt / Lt) | L.F. (1) | | | 4117 Shrewsbury 4117 Shrewsbury | Rt | 12' x 6' 12' x 6' | | located in curb lane; also R&R 6 LF integral curb located in through lane |
| | | | | | 4121 Shrewsbury | Rt | 12 × 6' | a second a second s | located in curb lane; also R&R 6 LF integral curb |
| 7502 Suffolk | Rt | 25 | | | Shrewsbury at Arlington | Rt | 12' x 6' | an a | located in curb lane; also R&R 6 LF integral curb |
| 4111 Shrewsbury | Rt Rt | 12 | | | 7502 Arlington | Rt | 12' x 6' | | located in curb lane; also R&R 6 LF integral curb |
| 4115 Shrewsbury 4117 Shrewsbury | Rt | <u>12</u> 12 | le presentation de la constant de l El constant de la cons | | 4405 Shrewsbury | Rt | 11'x 6' | | located in turn lane |
| 4117 Shrewsbury 4119 Shrewsbury | Rt | 12 | | | 4405 Shrewsbury 7505 Lansdowne | Rt Rt | 11' x 6' 12' x 6' | 7.3 8.0 | located in curb lane; also R&R 6 LF integral curb located in turn lane |
| 7502 Arlington | Rt | 18 | | | 7505 Lansdowne | Rt | 12 x 6 11'x 6' | 7.3 | located in through lane |
| 4401 Shrewsbury | Rt | 42 | | | 7500 Lansdowne | Rt | 2- (11' x 6') | 14.7 | 2 sections; located in through lane |
| 4405 Shrewsbury | Rt | 12 | | | 7501 Devonshire | Rt | 11' x 6' | | located in through lane |
| 7500 Lansdowne 7501 Devonshire | Rt Rt | <u>45</u> 20 | | | 7501 Murdoch (office building) | Rt | 3- (11' x 6') | 22.0 | 3 sections; located in through lane |
| | Rt | 20 26 | | | 7419 Murdoch (apartment building) | Lt. | <u>2- (11' x 6')</u> 3- (11' x 6') | 14.7 | 2 sections; located in through lane |
| 7501 Murdoch | Lt | 20 | | | 7424 Devonshire 7425 Devonshire | Lt Lt | 3- (11' x 6') 3- (11' x 6') | 22.0 22.0 | 3 sections; located in through lane 3 sections; located in through lane |
| 7501 Murdoch 7419 Murdoch (apartment building) | <u>en en e</u> | 70 | | | 4500 Shrewsbury | Lt. | 11'x 6' | 7.3 | located in through lane |
| والمتحد والمحافظ والمح | Ĺŧ | | '비행들이 있는 것 같은 것은 것은 것은 것 같은 것 같은 것 같은 것 같은 것 같은 | | Shrewsbury Ave at BNSF Rail Overpass | Lt | 12' x 6' | 8.0 | located in curb lane; also R&R 6 LF integral curb |
| 7419 Murdoch (apartment building) 7424 Devonshire 4504 Shrewsbury | Lt Lt | 20 | A second structure descent structures and s | and the set of the set | | Lt | 2- (12' x 6') | 16.0 | 2 sections; located in through lane |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury | Lt Lt Lt | 10 | | | 4118 Carr Lane (opposite Arlington) | | | [3] The second state of the first second state of the second st | located in curb lane; also R&R 6 LF integral curb |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury | Lt Lt Lt Lt | 10 40 | | | 4118 Carr Lane (opposite 4115 Shrews.) | Lt | 12' x 6' | 8.0 | |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury4500 Shrewsbury7404 Sutherland (parking lot) | Lt Lt Lt | 10 | | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.) | Lt Lt | 12' x 6' 12' x 6' | 8.0 | located in through lane |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury | Lt Lt Lt Lt Lt Lt | 10 40 12 | | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.) | Lt Lt Lt | 12' x 6' 12' x 6' 12' x 6' | 8.0 8.0 | located in curb lane; also R&R 6 LF integral curb |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury4500 Shrewsbury (police station)7404 Sutherland (parking lot)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex) | Lt Lt Lt Lt Lt Lt Lt Lt Lt | 10 40 12 70 | | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.) | Lt Lt | 12' x 6' 12' x 6' 12' x 6' 12' x 6' 12' x 6' | 8.0 | |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury4500 Shrewsbury (police station)7404 Sutherland (parking lot)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 10 40 12 70 | | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 4009 Shrews.) | Lt Lt Lt Lt | 12' x 6' 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') 12' x 6' | 8.0 8.0 8.0 16.0 8.0 | located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in turn lane |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury4500 Shrewsbury (police station)7404 Sutherland (parking lot)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 10 40 12 70 15 6 9 9 | | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.)4118 Carr Lane (opposite 4009 Shrews.) | Lt Lt Lt Lt Lt Lt Lt Lt | 12' x 6' 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') 12' x 6' 12' x 6' | 8.0 8.0 8.0 16.0 8.0 8.0 8.0 | located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in turn lane located in curb lane; also R&R 6 LF integral curb |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury4500 Shrewsbury (police station)7404 Sutherland (parking lot)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 10 40 12 70 15 6 9 9 9 10 | | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 7504 Suffolk) | Lt Lt Lt Lt Lt Lt Lt Lt Lt | 12' x 6' 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') 12' x 6' 12' x 6' 12' x 6' | 8.0 8.0 8.0 16.0 8.0 8.0 8.0 8.0 | located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in turn lane located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury4500 Shrewsbury (police station)7404 Sutherland (parking lot)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 10 40 12 70 15 6 9 9 9 9 10 20 | | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 7504 Suffolk)4118 Carr Lane (opposite 7502 Suffolk) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 12' x 6' 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') | 8.0 8.0 8.0 16.0 8.0 8.0 8.0 16.0 | located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in turn lane located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury4500 Shrewsbury (police station)7404 Sutherland (parking lot)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 10 40 12 70 15 6 9 9 9 10 | R&R all curb & gutter; south side of Lansdowne | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 7504 Suffolk)4118 Carr Lane (opposite 7502 Suffolk)4118 Carr Lane (opposite 7502 Suffolk) | Lt Lt Lt Lt Lt Lt Lt Lt Lt | 12' x 6' 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') 12' x 6' 12' x 6' | 8.0 8.0 8.0 16.0 8.0 8.0 8.0 16.0 8.0 | located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in turn lane located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in curb lane; also R&R 6 LF integral curb |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury4500 Shrewsbury (police station)7404 Sutherland (parking lot)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 10 40 12 70 15 6 9 9 9 9 10 20 50 | R&R all curb & gutter; south side of Lansdowne R&R all curb & gutter; north side of Lansdowne | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 7504 Suffolk)4118 Carr Lane (opposite 7502 Suffolk) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 12' x 6' 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') | 8.0 8.0 8.0 16.0 8.0 8.0 8.0 16.0 | located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in turn lane located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane |
| 7419 Murdoch (apartment building) 7424 Devonshire 4504 Shrewsbury 4500 Shrewsbury 4500 Shrewsbury 4500 Shrewsbury 4500 Shrewsbury (police station) 7404 Sutherland (parking lot) 18 Carr Lane (Laclede Gas Complex) 18 Carr Lane (Laclede Gas Complex) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 10 40 12 70 15 6 9 9 9 9 9 10 20 50 1,498 1,241 | | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 7504 Suffolk)4118 Carr Lane (opposite 7502 Suffolk)4118 Carr Lane (opposite 7502 Suffolk) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 12' x 6' 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') 12' x 6' 12' x 6' | 8.0 8.0 8.0 16.0 8.0 8.0 8.0 16.0 8.0 10.7 | located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in turn lane located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb |
| 7419 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury4500 Shrewsbury4500 Shrewsbury (police station)7404 Sutherland (parking lot)18 Carr Lane (Laclede Gas Complex)18 Carr Lane (Laclede Gas Complex) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 10 40 12 70 15 6 9 9 9 9 10 20 50 1,498 | | | 4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 7504 Suffolk)4118 Carr Lane (opposite 7502 Suffolk) | Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt Lt | 12' x 6' 12' x 6' 12' x 6' 12' x 6' 2- (12' x 6') 12' x 6' 12' x 6' | 8.0 8.0 8.0 16.0 8.0 8.0 8.0 16.0 8.0 10.7 | located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in turn lane located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb 2 sections; located in through lane located in curb lane; also R&R 6 LF integral curb located in curb lane; also R&R 6 LF integral curb |
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| and a second | xact locations & quantities to be | | | | | | determined by the Eng | gineer. To include sawcutting and aggregate base. |
|--|---|--|---|-----------|--|--|--|---|
| LOCATION | SIDE (Rt / Lt) | QUANTITY S.Y. (0.1) | REMARKS | | LOCATION | SIDE (Rt / Lt) | | QUANTITY REMARKS L.F. (1) |
| | | | | | | | | |
| 4015 Shrewsbury 4111 Shrewsbury | Rt Rt | 8.9 | 20' x 4' 16' x 4' | | 7500 Lansdowne 4500 Shrewsbury (at Lansdowne) | Rt Lt | | 12 for concrete base replacement 13 for concrete base replacement |
| 7500 Lansdowne | Rt | 3.6 | 8' x 4' | | 7404 Sutherland | Lt | | 36 for concrete base replacement |
| 0 Shrewsbury (Lansdowne side) | Rt | | 27' x 4' | | 7404 Sutherland | Lt | | 30 for concrete base replacement |
| 7424 Lansdowne | Rt | 5.3 | 12' x 4' | | 4118 Carr Lane (opposite 7504 Suffolk) | Lt | | 42 for concrete base replacement; 3 sections (15' + 15' + 12') |
| 7422 Lansdowne 7418 Lansdowne | Rt Rt | <u>6.7</u> 4 4 | 15' x 4' 10' x 4' | | 4118 Carr Lane (opposite Arlington Ave.) Shrewsbury at Suffolk | Lt Rt | | 10 for concrete base replacement 6 for joint repair |
| 7412 Lansdowne | Rt | 2.7 | 6' x 4' | | 7502 Suffolk | Rt | | 12 for joint repair |
| 7404 Lansdowne | Rt | 6.7 | 15' x 4' | | 4117 Shrewsbury | Rt | | 6 for joint repair |
| 7402 Lansdowne | Rt Rt | 4.4 | 10' x 4' 6' x 4' | | 4121 Shrewsbury Shrewsbury at Arlington | Rt Rt | | 6 for joint repair 6 for joint repair |
| 7340 Lansdowne 7330 Lansdowne | Rt | | 6'x4' | | 7502 Arlington | Rt | | 6 for joint repair |
| 7326 Lansdowne | Rt | 6.7 | 15' x 4' | | 4405 Shrewsbury | Rt | | 6 for joint repair |
| 7318 Lansdowne | Rt | 6.2 | 14' x 4' | | Shrewsbury Ave at BNSF Rail Overpass | <u></u> | | 6 for joint repair |
| 7310 Lansdowne 7306 Lansdowne | Rt Rt | <u>2.7</u> 2.7 | 6' x 4' 6' x 4' | | 4118 Carr Lane (opposite 4115 Shrews.) 4118 Carr Lane (opposite 4107 Shrews.) | Lt Lt | | 6 for joint repair 6 for joint repair |
| 250 Lansdowne (gas station) | Rt | 3.3 | 6' x 5' | | 4118 Carr Lane (opposite 4107 Shrews.) | Lt | | 6 for joint repair |
| 7307 Lansdowne | L | 8.0 | 18' x 4' | | 4118 Carr Lane (opposite 4009 Shrews.) | Lt | | 6 for joint repair |
| 7321 Lansdowne | Ц | 2.7 | 6' x 4' | | 4118 Carr Lane (opposite 7504 Suffolk) | Lt | | 6 for joint repair |
| 7323 Lansdowne | | 8.0 | 18' x 4' 6' x 4' | | 4118 Carr Lane (opposite 7502 Suffolk) | Lt | | 12 for joint repair (2 - 6' sections) |
| 7401 Lansdowne | Lt | 2.1 | | | 4118 Carr Lane (opposite Suffolk Ave) 4400 Shrewsbury (police station) | Lt Lt | | 6 for joint repair 12 for joint repair (2 - 6' sections) |
| TOTAL | | 110.2 | | | | | | |
| | | | | | TOTAL | | | 257 |
| Exact locat | an an tha bha ta | FOR CURB RAMPS (New ed by the Engineer. To inclu | Construction) Ide sawcutting & thickened areas. | 612-60.92 | | Δροι | N PANEL TYPE "R" / | NOISELESS), RENTAL |
| LOCATION | SIDE | QUANTITY | REMARKS | | | nda sa iyan minani mini mani mini mini mini mini | | determined by the Engineer. |
| | <u>(Rt / Lt)</u> | <u>S.F. (1)</u> | | | LOCATION | SIDE | | QUANTITY |
| Shrewsbury at Murdoch | Rt | 20 | for island reconstruction, northwest quadrant; 3 - 2' x 5' | | | <u>(Rt / Lt)</u> | | EACH |
| Omewoouly at MuluoCli | | | nor island rooundu uvuvn, horunwest quaurant, J = Z X J | | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | | 4 |
| TOTAL | | 30 | | | | | | |
| | | | \mathbf{x} | | TOTAL | | | 4 |
| Exact le | ocations & quantities to be deten | GUTTER, MOUNTABLE (6" mined by the Engineer. To i | | 613-10.18 | | JOINT REF | PAIR - TRANSVERSE | HIGH EARLY STRENGTH |
| LOCATION | SIDE | QUANTITY | REMARKS | | Exact locations | | | eer. Includes all items as described in JSP 1100.70.8 |
| | <u>(Rt / Lt)</u> | <u>L.F. (1)</u> | | | LOCATION | SIDE | DIMENSIONS | QUANTITY REMARKS |
| downe east of Shrewsbury (park) | Lt | 200 | for shoulder upgrades | | | <u>(Rt / Lt)</u> | <u>(L.F. x L.F.)</u> | <u>S.Y. (0.1)</u> |
| wome out of one wood y (park) | | | | | Shrewsbury at Suffolk | Rt | 11' x 6' | 7.3 located at SW radius in curb lane; also R&R 6 LF integral curb |
| TOTAL | | 200 | | | 7502 Suffolk | Rŧ | 2- (11' x 6') | 14.7 2 sections; located in curb lane; also R&R 12 LF integral curb |
| R EM(| OVE & REPLACE CURB & GUT | TTER (VARIOUS WIDTHS) | . VERTICAL. MOUNTABLE | | 4009 Shrewsbury | Rt | 12' x 6' | 8.0 located in turn lane |
| | | | , and aggregate base. Includes R&R of entire C&G section. | | 4101 Shrewsbury 4105 Shrewsbury | Rt Rt | 12' x 6' 12' x 6' | 8.0 located in through lane 8.0 located in through lane |
| LOCATION | SIDE | QUANTITY | REMARKS | | 4117 Shrewsbury | Rt | 12' x 6' | 8.0 located in curb lane; also R&R 6 LF integral curb |
| | <u>(Rt / Lt)</u> | <u>L.F. (1)</u> | | | 4117 Shrewsbury | Rt | 12' x 6' | 8.0 located in through lane |
| | | | | | 4121 Shrewsbury Shrewsbury at Arlington | Rt Rt | 12' x 6' 12' x 6' | 8.0located in curb lane; also R&R 6 LF integral curb8.0located in curb lane; also R&R 6 LF integral curb |
| 7502 Suffolk | Rt | 25 | | | | Rt | and the second | |
| 7502 Suffolk 4111 Shrewsbury | Rt Rt | 25 12 | | | | | 12°X 6' | 8.0 I I I I I I I I I I I I I I I I I I I |
| 4111 Shrewsbury 4115 Shrewsbury | Rt Rt | 12 12 | | | 7502 Arlington 4405 Shrewsbury | Rt | 12' x 6' 11' x 6' | 8.0located in curb lane; also R&R 6 LF integral curb7.3located in turn lane |
| 4111 Shrewsbury 4115 Shrewsbury 4117 Shrewsbury | Rt Rt Rt | 12 12 12 12 | | | 7502 Arlington 4405 Shrewsbury 4405 Shrewsbury | Rt Rt | 11' x 6' 11' x 6' | 7.3located in turn lane7.3located in curb lane; also R&R 6 LF integral curb |
| 4111 Shrewsbury 4115 Shrewsbury 4117 Shrewsbury 4119 Shrewsbury | Rt Rt Rt Rt | 12 12 | | | 7502 Arlington 4405 Shrewsbury 4405 Shrewsbury 7505 Lansdowne | Rt Rt Rt | 11' x 6' 11' x 6' 12' x 6' | 7.3located in turn lane7.3located in curb lane; also R&R 6 LF integral curb8.0located in turn lane |
| 4111 Shrewsbury 4115 Shrewsbury 4117 Shrewsbury 4119 Shrewsbury 7502 Arlington 4401 Shrewsbury | Rt Rt Rt Rt Rt Rt Rt Rt Rt | 12 12 12 12 10 10 18 42 | | | 7502 Arlington 4405 Shrewsbury 4405 Shrewsbury | Rt Rt | 11' x 6' 11' x 6' 12' x 6' 11' x 6' | 7.3located in turn lane7.3located in curb lane; also R&R 6 LF integral curb8.0located in turn lane7.3located in through lane |
| 4111 Shrewsbury4115 Shrewsbury4115 Shrewsbury4117 Shrewsbury4119 Shrewsbury7502 Arlington4401 Shrewsbury4405 Shrewsbury | RtRtRtRtRtRtRtRtRt | 12 12 12 12 10 10 18 42 12 | | | 7502 Arlington4405 Shrewsbury4405 Shrewsbury7505 Lansdowne7505 Lansdowne7500 Lansdowne7501 Devonshire | Rt Rt Rt Rt Rt Rt Rt | 11' x 6' 11' x 6' 12' x 6' 11' x 6' 2- (11' x 6') 11' x 6' | 7.3located in turn lane7.3located in curb lane; also R&R 6 LF integral curb8.0located in turn lane7.3located in through lane14.72 sections; located in through lane7.3located in through lane7.3located in through lane |
| 4111 Shrewsbury4115 Shrewsbury4117 Shrewsbury4119 Shrewsbury7502 Arlington4401 Shrewsbury4405 Shrewsbury7500 Lansdowne | RtRtRtRtRtRtRtRtRtRtRtRt | 12 12 12 10 10 18 42 12 45 | | | 7502 Arlington4405 Shrewsbury4405 Shrewsbury7505 Lansdowne7505 Lansdowne7500 Lansdowne7501 Devonshire7501 Murdoch (office building) | Rt Rt Rt Rt Rt Rt Rt Rt | 11' x 6' 11' x 6' 12' x 6' 11' x 6' 2- (11' x 6') 11' x 6' 3- (11' x 6') | 7.3located in turn lane7.3located in curb lane; also R&R 6 LF integral curb8.0located in turn lane7.3located in through lane14.72 sections; located in through lane7.3located in through lane2.03 sections; located in through lane |
| 4111 Shrewsbury4115 Shrewsbury4115 Shrewsbury4117 Shrewsbury4119 Shrewsbury7502 Arlington4401 Shrewsbury4405 Shrewsbury | RtRtRtRtRtRtRtRtRtRtRtRtRt | 12 12 12 12 10 10 18 42 12 | | | 7502 Arlington4405 Shrewsbury4405 Shrewsbury7505 Lansdowne7505 Lansdowne7505 Lansdowne7500 Lansdowne7501 Devonshire7501 Murdoch (office building)7419 Murdoch (apartment building) | Rt Rt Rt Rt Rt Rt Rt Rt Lt | 11' x 6' 11' x 6' 12' x 6' 11' x 6' 2- (11' x 6') 11' x 6' 3- (11' x 6') 2- (11' x 6') | 7.3located in turn lane7.3located in curb lane; also R&R 6 LF integral curb8.0located in turn lane7.3located in through lane14.72 sections; located in through lane7.3located in through lane22.03 sections; located in through lane14.72 sections; located in through lane14.72 sections; located in through lane22.03 sections; located in through lane14.72 sections; located in through lane |
| 4111 Shrewsbury4115 Shrewsbury4115 Shrewsbury4117 Shrewsbury4119 Shrewsbury7502 Arlington4401 Shrewsbury4405 Shrewsbury7500 Lansdowne7501 Devonshire | RtRtRtRtRtRtRtRtRtRtRtRt | 12 12 12 10 10 18 42 12 45 20 26 20 | | | 7502 Arlington4405 Shrewsbury4405 Shrewsbury7505 Lansdowne7505 Lansdowne7500 Lansdowne7501 Devonshire7501 Murdoch (office building)7419 Murdoch (apartment building)7424 Devonshire | Rt Rt Rt Rt Rt Rt Rt Rt | 11'x 6' 11'x 6' 12'x 6' 11'x 6' 2- (11'x 6') 11'x 6' 2- (11'x 6') 2- (11'x 6') 3- (11'x 6') 3- (11'x 6') | 7.3located in turn lane7.3located in curb lane; also R&R 6 LF integral curb8.0located in turn lane7.3located in through lane14.72 sections; located in through lane7.3located in through lane2.03 sections; located in through lane14.72 sections; located in through lane22.03 sections; located in through lane |
| 4111 Shrewsbury 4115 Shrewsbury 4117 Shrewsbury 4119 Shrewsbury 7502 Arlington 4401 Shrewsbury 4405 Shrewsbury 7500 Lansdowne 7501 Devonshire 7501 Devonshire 7501 Murdoch 19 Murdoch (apartment building) 7424 Devonshire | Rt Rt Rt Lt | 12 12 12 10 10 18 42 12 45 20 26 20 20 70 | | | 7502 Arlington4405 Shrewsbury4405 Shrewsbury7505 Lansdowne7505 Lansdowne7500 Lansdowne7501 Devonshire7501 Murdoch (office building)7419 Murdoch (apartment building)7424 Devonshire7425 Devonshire4500 Shrewsbury | Rt Rt Rt Rt Rt Rt Rt Lt Lt | 11'x 6' 11'x 6' 12'x 6' 11'x 6' 2- (11'x 6') 3- (11'x 6') 2- (11'x 6') 3- (11'x 6') 3- (11'x 6') 3- (11'x 6') 11'x 6' | 7.3located in turn lane7.3located in curb lane; also R&R 6 LF integral curb8.0located in turn lane7.3located in through lane14.72 sections; located in through lane7.3located in through lane2.03 sections; located in through lane14.72 sections; located in through lane22.03 sections; located in through lane7.3located in through lane7.3located in through lane |
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| 4111 Shrewsbury4115 Shrewsbury4117 Shrewsbury4119 Shrewsbury7502 Arlington4401 Shrewsbury4405 Shrewsbury7500 Lansdowne7501 Devonshire7501 Devonshire7501 Murdoch9 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury00 Shrewsbury01 Shrewsbury02 Shrewsbury03 Shrewsbury04 Sutherland (parking lot)Carr Lane (Laclede Gas Complex)Carr Lane (Laclede Gas Complex)< | Rt Rt Rt Rt Rt Rt Rt Rt Rt Rt Rt Rt Rt Image: Stress of the stress o | 12 12 12 10 10 18 42 12 45 20 20 26 20 20 26 20 20 20 70 20 10 40 10 40 12 70 10 40 12 70 9 9 9 9 9 9 9 10 20 10 15 6 6 15 6 15 6 10 10 10 15 50 50 1,498 | | | 7502 Arlington4405 Shrewsbury4405 Shrewsbury7505 Lansdowne7505 Lansdowne7500 Lansdowne7501 Devonshire7501 Murdoch (office building)7419 Murdoch (apartment building)7424 Devonshire7425 Devonshire4500 ShrewsburyShrewsbury Ave at BNSF Rail Overpass4118 Carr Lane (opposite Arlington)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4101 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 7504 Suffolk)4118 Carr Lane (opposite 7502 Suffolk)4118 Carr Lane (opposite 7502 Suffolk)4118 Carr Lane (opposite 7502 Suffolk) | Rt Rt Rt Rt Rt Rt Lt Lt Lt | $\begin{array}{c c} 11' x 6' \\ 11' x 6' \\ 12' x 6' \\ 12' x 6' \\ 2- (11' x 6') \\ 2- (11' x 6') \\ 3- (11' x 6') \\ 2- (11' x 6') \\ 3- (11' x 6') \\ 3- (11' x 6') \\ 3- (11' x 6') \\ 11' x 6' \\ 12' x 6' \\ 2- (12' x 6') \\ 12' x 6' \\ 12' x $ | 7.3located in turn lane7.3located in curb lane; also R&R 6 LF integral curb8.0located in turn lane7.3located in through lane14.72 sections; located in through lane2.03 sections; located in through lane22.03 sections; located in through lane8.0located in curb lane; also R&R 6 LF integral curb16.02 sections; located in through lane8.0located in curb lane; also R&R 6 LF integral curb8.0located in curb lane; also R&R 6 LF integral curb16.02 sections; located in through lane8.0located in curb lane; also R&R 6 LF integral curb8.0located in curb lane; also R&R 6 LF integral curb8.0located in curb lane; also R&R 6 LF integral curb8.0located in curb lane; also R&R 6 LF integral curb8.0located in curb lane; also R&R 6 LF integral curb8.0located in curb lane; also R&R 6 |
| 4111 Shrewsbury4115 Shrewsbury4117 Shrewsbury4119 Shrewsbury7502 Arlington4401 Shrewsbury4405 Shrewsbury7500 Lansdowne7500 Lansdowne7501 Devonshire7501 Murdoch0 Murdoch (apartment building)7424 Devonshire4504 Shrewsbury4500 Shrewsbury0 Shrewsbury (police station)104 Sutherland (parking lot)arr Lane (Laclede Gas Complex)arr Lane (Laclede Gas Complex)< | Rt It | 12 12 12 10 10 18 42 12 45 20 20 26 20 20 20 70 20 70 20 10 40 12 70 10 40 12 70 15 6 9 9 9 9 9 9 9 10 20 20 10 15 50 50 1,498 1,241 | R&R all curb & gutter; north side of Lansdowne | | 7502 Arlington4405 Shrewsbury4405 Shrewsbury7505 Lansdowne7505 Lansdowne7500 Lansdowne7501 Devonshire7501 Murdoch (office building)7419 Murdoch (apartment building)7424 Devonshire7425 Devonshire4500 ShrewsburyShrewsbury Ave at BNSF Rail Overpass4118 Carr Lane (opposite Arlington)4118 Carr Lane (opposite 4115 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4107 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 4009 Shrews.)4118 Carr Lane (opposite 7504 Suffolk)4118 Carr Lane (opposite 7502 Suffolk) | Rt Rt Rt Rt Rt Rt Lt Lt Lt | $\begin{array}{c c} 11' x 6' \\ 11' x 6' \\ 12' x 6' \\ 12' x 6' \\ 2- (11' x 6') \\ 2- (11' x 6') \\ 3- (11' x 6') \\ 2- (11' x 6') \\ 3- (11' x 6') \\ 3- (11' x 6') \\ 3- (11' x 6') \\ 11' x 6' \\ 12' x 6' \\ 2- (12' x 6') \\ 12' x 6' \\ 12' x $ | 7.3 located in turn lane 7.3 located in curb lane; also R&R 6 LF integral curb 8.0 located in turn lane 7.3 located in through lane 22.0 3 sections; located in through lane 8.0 located in curb lane; also R&R 6 LF integral curb 16.0 2 sections; located in through lane 8.0 located in curb lane; also R&R 6 LF integral curb 8.0 located in curb lane; also R&R 6 LF integral curb 8.0 located in curb lane; also R&R 6 LF integral curb 8.0 located in curb lane; also R&R 6 LF integral curb 8.0 located in curb lane; also R&R 6 LF integral curb 8.0 located in curb lane; also R&R 6 LF |

| | | ties to be determined by the Engineer. To include sawcutting. | | | | e determined by the Engineer. To include sa | | FEDERA ST |
|--|---|---|-----------|--|---|---|--|-----------------------|
| LOCATION | SIDE (<u>Rt / Lt)</u> | QUANTITY REMARKS S.Y. (0.1) | | LOCATION | SIDE (Rt / Lt) | QUANTITY L.F. (1) | REMARKS | E-W G |
| | | | | | ((((1-1)) | | | |
| 4015 Shrewsbury | Rt | 8.9 20' x 4' | | 7500 Lansdowne | Rt | en la construction de la | concrete base replacement | MSD: |
| 4111 Shrewsbury | Rt | 7.1 16'x 4' | | 4500 Shrewsbury (at Lansdowne) | Lt | | concrete base replacement | MSD BA |
| 7500 Lansdowne 00 Shrewsbury (Lansdowne side) | Rt Rt | 3.6 8' x 4' 12.0 27' x 4' | | 7404 Sutherland 7404 Sutherland | Lt Lt | | concrete base replacement concrete base replacement | |
| 7424 Lansdowne | Rt | 5.3 12' x 4' | | 4118 Carr Lane (opposite 7504 Suffolk) | L. L | | concrete base replacement; 3 sections (15' + 15' + 12') | |
| 7422 Lansdowne | Rt | 6.7 15' x 4' | | 4118 Carr Lane (opposite Arlington Ave.) | Lt | | concrete base replacement | |
| 7418 Lansdowne | Rt | 4.4 10' x 4' | | Shrewsbury at Suffolk | Rt | | joint repair | Z |
| 7412 Lansdowne | Rt | 2.7 6' x 4' | | 7502 Suffolk | Rt | | joint repair | - JTG |
| 7404 Lansdowne 7402 Lansdowne | Rt Rt | 6.7 15' x 4' 4.4 10' x 4' | | 4117 Shrewsbury 4121 Shrewsbury | Rt Rt | | joint repair joint repair | SCR |
| 7340 Lansdowne | Rt | 2.7 6'x4' | | Shrewsbury at Arlington | Rt | | joint repair | DES |
| 7330 Lansdowne | Rt | 2.7 6' x 4' | | 7502 Arlington | Rt | ter and the second state of the | joint repair | NOI |
| 7326 Lansdowne | Rt | 6.7 15' x 4' | | 4405 Shrewsbury | Rt | | joint repair | EVIS |
| 7318 Lansdowne | Rt | 6.2 14' x 4' 2.7 6' x 4' | | Shrewsbury Ave at BNSF Rail Overpass | | | joint repair | <u> </u> |
| 7310 Lansdowne 7306 Lansdowne | Rt Rt | 2.7 6' x 4' 2.7 6' x 4' | | 4118 Carr Lane (opposite 4115 Shrews.) 4118 Carr Lane (opposite 4107 Shrews.) | Lt Lt | | joint repair joint repair | |
| 7250 Lansdowne (gas station) | Rt | 3.3 6' x 5' | | 4118 Carr Lane (opposite 4101 Shrews.) | Lt. | | joint repair | B |
| 7307 Lansdowne | Lt | 8.0 18' x 4' | | 4118 Carr Lane (opposite 4009 Shrews.) | Lt | | joint repair | ATE |
| 7321 Lansdowne | Lt | 2.7 6' x 4' | | 4118 Carr Lane (opposite 7504 Suffolk) | Lt | and the second | joint repair | |
| 7323 Lansdowne | Lt | 8.0 18' x 4' 2.7 6' x 4' | | 4118 Carr Lane (opposite 7502 Suffolk) | | | joint repair (2 - 6' sections) | |
| 7401 Lansdowne | Lt | 2.7 6' x 4' | | 4118 Carr Lane (opposite Suffolk Ave) 4400 Shrewsbury (police station) | Lt Lt | | joint repair joint repair (2 - 6' sections) | |
| TOTAL | | 110.2 | | יויס טוודעישוויט טוויט טוויט טידד טוויט טידד טוויט טוויט טידד א טיוטט טידע טיזיע איז א טיוטט טיזיע איז א טיוטט | | | ישטער באמו (ב - ט פרטוטווס) | pe e |
| | | | | TOTAL | | 257 | | |
| | | DOMES FOR CURB RAMPS (New Construction) | | | | | | IMEF NSIB ntene |
| | SIDE | determined by the Engineer. To include sawcutting & thickened areas. QUANTITY REMARKS | 612-60.92 | | | W PANEL, TYPE "B" (NOISELESS), REN tions & quantities to be determined by the E | | SPO V spe |
| | (Rt / Lt) | <u>S.F. (1)</u> | | LOCATION | SIDE | | REMARKS | |
| | | | | | <u>(Rt / Lt)</u> | EACH | | |
| Shrewsbury at Murdoch | Rt | 30 for island reconstruction, northwest quadrant; 3 - 2' x 5' | | | | | | |
| TOTAL | | 30 | | Shrewsbury Ave / Lansdowne Ave | Rt / Lt | 4 | | and A |
| | 1 | | | TOTAL | | | | |
| | C | URB & GUTTER, MOUNTABLE (6") | | | | | | |
| | | be determined by the Engineer. To include sawcutting as needed. | 613-10.18 | | in the second | PAIR - TRANSVERSE, HIGH EARLY STR | | |
| LOCATION | SIDE | QUANTITY REMARKS | | | in the many second s | etermined by the Engineer. Includes all item | | 4460 |
| | (<u>Rt / Lt</u>) | <u> </u> | | LOCATION | SIDE (<u>Rt / Lt)</u> | DIMENSIONS QUANTITY (L.F. x L.F.) S.Y. (0.1) | REMARKS | |
| sdowne east of Shrewsbury (park) | Lt | 200 for shoulder upgrades | | | <u>(KU E</u> 9 | <u>(L.r. X L.r.)</u> <u>5.1. (0.1)</u> | | DATE: |
| | | | | Shrewsbury at Suffolk | Rt | 11'x 6' 7.3 loc | ated at SW radius in curb lane; also R&R 6 LF integral curb | |
| TOTAL | | 200 | | 7502 Suffolk | Rt | | ections; located in curb lane; also R&R 12 LF integral curb | |
| REM | OVE & REPLACE CUF | RB & GUTTER (VARIOUS WIDTHS), VERTICAL, MOUNTABLE | | 4009 Shrewsbury 4101 Shrewsbury | Rt Rt | | ated in turn lane ated in through lane | Z |
| | | er. To include sawcutting, excavation, and aggregate base. Includes R&R of entire C&G section. | | 4105 Shrewsbury | Rt | | ated in through lane | |
| LOCATION | SIDE | QUANTITY REMARKS | | 4117 Shrewsbury | Rt | | ated in curb lane; also R&R 6 LF integral curb | |
| | (Rt / Lt) | <u>L.F. (1)</u> | | 4117 Shrewsbury | Rt | | ated in through lane | SIGN SIGN |
| 7502 Suffolk | Rt | 25 | | 4121 Shrewsbury | Rt | | ated in curb lane; also R&R 6 LF integral curb | DE |
| 4111 Shrewsbury | Rt | | | Shrewsbury at Arlington 7502 Arlington | Rt Rt | | ated in curb lane; also R&R 6 LF integral curb ated in curb lane; also R&R 6 LF integral curb | EPA |
| 4115 Shrewsbury | Rt | 12 | | 4405 Shrewsbury | Rt | | ated in turn lane | Ha |
| 4117 Shrewsbury | Rt | | | 4405 Shrewsbury | Rt | 11' x 6' 7.3 loc | ated in curb lane; also R&R 6 LF integral curb | |
| 4119 Shrewsbury 7502 Arlington | Rt Rt | 10 18 | | 7505 Lansdowne | Rt | | ated in turn lane | |
| 4401 Shrewsbury | Rt | 10 42 | | 7505 Lansdowne 7500 Lansdowne | Rt Rt | | ated in through lane ections; located in through lane | Sil |
| 4405 Shrewsbury | Rt | 12 | | 7500 Lansdowne 7501 Devonshire | Rt | | ated in through lane | |
| 7500 Lansdowne | Rt | 45 | | 7501 Murdoch (office building) | Rt | | ections; located in through lane | |
| 7501 Devonshire | Rt | 20 | | 7419 Murdoch (apartment building) | Lŧ | 2- (11' x 6') 14.7 2 s | ections; located in through lane | |
| 7501 Murdoch 19 Murdoch (apartment building) | Rt Lt | 26 20 | | 7424 Devonshire | Lt | | ections; located in through lane | |
| 7424 Devonshire | Lt | 20 70 | | 7425 Devonshire 4500 Shrewsbury | Lt Lt | | ections; located in through lane ated in through lane | |
| 4504 Shrewsbury | Lt | 20 | | Shrewsbury Ave at BNSF Rail Overpass | Lt | | ated in curb lane; also R&R 6 LF integral curb | |
| 4500 Shrewsbury | Lt | | | 4118 Carr Lane (opposite Arlington) | Li | 2- (12' x 6') 16.0 2 s | ections; located in through lane | |
| 500 Shrewsbury (police station) | Lt | <u>40</u> 12 | | 4118 Carr Lane (opposite 4115 Shrews.) | Lt | | ated in curb lane; also R&R 6 LF integral curb | |
| 7404 Sutherland (parking lot) Carr Lane (Laclede Gas Complex) | | 12 70 | | 4118 Carr Lane (opposite 4115 Shrews.) | | | ated in through lane | |
| | Lt | 15 | | 4118 Carr Lane (opposite 4107 Shrews.) 4118 Carr Lane (opposite 4101 Shrews.) | Lt Lt | | ated in curb lane; also R&R 6 LF integral curb ated in curb lane; also R&R 6 LF integral curb | AVENUE |
| Carr Lane (Laclede Gas Complex) | Lt | 6 | | 4118 Carr Lane (opposite 4101 Shrews.) | Lt. | na se | ections; located in through lane | |
| Carr Lane (Laclede Gas Complex) | <u>Lt</u> | 9 | | 4118 Carr Lane (opposite 4009 Shrews.) | Lt | 12' x 6' 8.0 loc | ated in turn lane | NNE NIE |
| Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) | Lt Lt | 9 10 | | 4118 Carr Lane (opposite 4009 Shrews.) | L | and a straight for a straight for a straight for the straight of a straight | ated in curb lane; also R&R 6 LF integral curb | |
| Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) | (a) a second of the state of the second second to | 10 20 | | 4118 Carr Lane (opposite 7504 Suffolk) | Lt. | | ated in curb lane; also R&R 6 LF integral curb | ରୂଠ |
| Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) | and a superior of the second secon | en e | | 4118 Carr Lane (opposite 7502 Suffolk)4118 Carr Lane (opposite 7502 Suffolk) | Lt Lt | | ections; located in through lane ated in curb lane; also R&R 6 LF integral curb | |
| Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) | Lt Lt | 50 | | | Lt | | ated in curb lane; also R&R 6 LF integral curb | SHREWSBI |
| Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) Lansdowne Ave | Lt Lt Rt | 1,498 R&R all curb & gutter; south side of Lansdowne | | 4118 Carr Lane (opposite 7502 Suffolk) | | | | 」 II よー |
| Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) | Lt Lt | | | 4118 Carr Lane (opposite 7502 Suffolk) 4118 Carr Lane (opposite Suffolk Ave) | Lŧ | 18' x 6' 12.0 loc | ated in curb lane; also R&R 6 LF integral curb | |
| Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) Lansdowne Ave Lansdowne Ave | Lt Lt Rt | 1,498 R&R all curb & gutter; south side of Lansdowne 1,241 R&R all curb & gutter; north side of Lansdowne | | 4118 Carr Lane (opposite Suffolk Ave) | Lt | | ated in curb lane; also R&R 6 LF integral curb | |
| Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) Lansdowne Ave | Lt Lt Rt | 1,498 R&R all curb & gutter; south side of Lansdowne | | | Le | 18' x 6' 12.0 loc 368.6 | ated in curb lane; also R&R 6 LF integral curb | |
| Carr Lane (Laclede Gas Complex) Carr Lane (Laclede Gas Complex) Lansdowne Ave Lansdowne Ave | Lt Lt Rt | 1,498 R&R all curb & gutter; south side of Lansdowne 1,241 R&R all curb & gutter; north side of Lansdowne | | 4118 Carr Lane (opposite Suffolk Ave) | L | | ated in curb lane; also R&R 6 LF integral curb | |

ITEM NUMBER 613-10.90, JOINT REPAIR - TRANSVERSE, TYPE III CEMENT W/ ACCELERATOR, 8.5 SACK HAS BEEN REPLACED WITH ITEM NO. 613-10.91, JOINT REPAIR - TRANSVERSE, VERY EARLY STRENGTH PER ADDENDUM NO. 2.

SHEET SEQUENCE: 6A OF 39

| | Exact locations <u>LOCATION</u> | SIDE | etermined by the Engir | eer. Includes al | l items as described in JSP 1100.70.8 REMARKS | 904-85.05 | | OR LOOP, #14 GAUGE, 1 CO Exact locations & qu | |
|--|---|--|--------------------------|----------------------------|---|-----------|---|--|--|
| | | <u>(Rt / Lt)</u> | <u>(L.F. x L.F.)</u> | <u>S.Y. (0.1)</u> | | | LOCATION | SIDE (Rt / Lt) | |
| | 4400 Shrewsbury (police station) 4400 Shrewsbury (police station) | Lt Lt | 9' x 6' 15' x 6' | 6.0 10.0 | located in curb lane; also R&R 6 LF integral curb | | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | |
| | 4400 Shrewsbury (police station) | Lf | 13 x 8 12' x 6' | 8.0 | located in through lane located in curb lane; also R&R 6 LF integral curb | | Shrewsbury Ave / Lansdowne Ave | | |
| | 4118 Carr Lane (opposite 4117 Shrews.) 3920 Shrewsbury / 3640 Big Bend | Lt Lt | 12' x 6' 12' x 6' | 8.0 8.0 | located in through lane located in through lane (opposite 3917 Shrewsbury) | | TOTAL | | |
| | 3920 Shrewsbury / 3640 Big Bend | Lt | 18' x 6' | 12.0 | located in through lane (opposite 3917 Shrewsbury) | 904-85.06 | CABLE | DETECTOR LOOP, #14 GAUG | GE, 1 C |
| | TOTAL | | | 52.0 | | | | Exact locations & qu | the second s |
| 803-45.02 | | | STRIP SOI | | | | LOCATION | SIDE (Rt / Lt) | |
| | | | ons & quantities to be | determined by f | the Engineer. | | | | |
| | LOCATION | SIDE (Rt / Lt) | | QUANTITY S.Y. (1.0) | REMARKS | | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | |
| | Shrewsbury Ave / Lansdowne Ave | Rt / Lt | | | | | TOTAL | | |
| | | NU/LU | | 1,120 | | 904-85.18 | CABLE. PUSI | BUTTON AND/ OR DETECT | TOR L |
| | ΤΟΤΑL | | | 1,120 | | | | Exact locations & qu | |
| 904-24.01 | | | IGNAL HEAD, TYPE | | 二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十 | | LOCATION | SIDE (Rt / Lt) | |
| | LOCATION | SIDE | ons & quantities to be | | REMARKS | | | | |
| | | <u>(Rt / Lt)</u> | | EACH | | | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | |
| | Shrewsbury Ave / Lansdowne Ave | Rt / Lt | | 24 | | | TOTAL | | |
| | TOTAL | | | 24 | | 904-91.73 | | DAO | F T \/F |
| 904-28.10 | POST SIG | | EDESTAL BASE AN | DPOSTCAD | IO' TOTAL HEIGHT, ALUMINUM | | | Exact locations & qu | E, TYP |
| | | Exact locati | ons & quantities to be | determined by t | he Engineer. | | LOCATION | SIDE | |
| | LOCATION | SIDE (Rt / Lt) | | QUANTITY EACH | REMARKS | | | <u>(Rt / Lt)</u> | |
| | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | | 7 | | | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | |
| | | NU/LI | | 1 | | | TOTAL | | |
| | TOTAL | | | 7 | | 904.05.10 | | | |
| 904-49.20 | | | , PEDESTRIAN PUSH | | | 904-95.10 | | OPENING DRILLED Exact locations & qu | |
| | LOCATION | SIDE | ons & quantities to be | | REMARKS | | LOCATION | SIDE | |
| | | <u>(Rt / Lt)</u> | | EACH | | | | <u>(Rt / Lt)</u> | |
| | Shrewsbury Ave / Lansdowne Ave | Rt / Lt | | 24 | | | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | |
| | TOTAL | | | 24 | | | TOTAL | | |
| 904-51.00 | | | CONDUI | r 4" | | | | | |
| | | and the second | ons & quantities to be | determined by t | | 904-95.31 | | ADJUSTME Exact locations & qu | |
| | LOCATION | <u>SIDE</u> (<u>Rt / Lt)</u> | | QUANTITY L.F. (1) | REMARKS | | LOCATION | SIDE | |
| | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | | 23 | | | | <u>(Rt / Lt)</u> | |
| | | 1.1.7 - 1.4. | | | | | Shrewsbury at Arlington | Rt | |
| 904-52.00 | TOTAL | | CONDUIT | 23 Г, 2" | | | TOTAL | | |
| | | Exact location | ons & quantities to be | determined by t | | | | | |
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| | Shrewsbury Ave / Lansdowne Ave | Rt / Lt | | 89 | | | LOCATION | SIDE | |
| | TOTAL | | | 89 | | | | <u>(Rt / Lt)</u> | |
| | | | | | | | Shrewsbury at Sutherland | Rt | |
| 904-74.99 | | | | | ING CABLE, REPAIR/ REPLACE CONDUIT, OR PAVEMENT REMOVAL AND REPLACEMENT) | | Shrewsbury at Devonshire Shrewsbury at Murdoch | Lt Lt | |
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| | | SIDE <u>(Rt / Lt)</u> | | QUANTITY EACH | REMARKS | | TOTAL | | |
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| | · • • • • • • • • • • • • • • • • • • • | | | | | | LOCATION | SIDE | |
| 904-83.05 | | | E, SIGNAL, #14 GAU | | | | | <u>(Rt / Lt)</u> | |
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| | Shrewsbury Ave / Lansdowne Ave | Rt / Lt | | 840 | | | IV IЛЕ | | |
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| 904-84.00 | | | RE, STRANDED GRO | | | | LOCATION | SIDE | |
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| | | <u>(Rt / Lt)</u> | | L.F. (1.0) | | | Shrewsbury Ave / Lansdowne Ave | Rt/Lt | |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | Shrewsbury Ave / Lansdowne Ave | Rt / Lt | | 160 | | | | | |
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May 16, 2014

ADDENDUM FAX COVER LETTER

ADDENDUM NO. 2

FROM: <u>St. Louis County Department of Highways and Traffic</u>

RE: <u>Shrewsbury Avenue-Lansdowne Avenue Infrastructure</u> <u>St. Louis County Project No. AR-1388</u> <u>Federal Project No. STP-4901(635)</u>

DATE:_____ TIME: _____

NUMBER OF PAGES (Including Cover Letter): Thirty (30)

IF YOU DO NOT RECEIVE ALL PAGES, CALL (314) 615-8543.

PLEASE DELIVER TO RECIPIENT AS SOON AS POSSIBLE.

UPON RECEIPT OF THIS FAX TRANSMISSION, <u>PLEASE</u> <u>SIGN AND DATE</u> (IN THE INDICATED LOCATIONS BELOW), AND <u>FAX THIS ACKNOWLEDGEMENT TO</u> <u>THIS DEPARTMENT AT 615-8194</u> (Attn: DESIGN DIVISION) TO VERIFY RECEIPT

| COMPANY | |
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