MILL CREEK METROPOLITAN PARK DISTRICT
MAHONING COUNTY, OHIO

2020 PARKING LOT IMPROVEMENTS
EAST GOLF HIKE & BIKE TRAIL PARKING LOT (WEST GOLF DRIVE) AND THE FLATS PARKING LOT

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STANDARD DRAWINGS ATTACHED

2019 SPECIFICATIONS

EXCAVATION, EMBANKMENT, SUBGRADE COMPACTION, INSTALLATION OF AGGREGATE BASE, PAVEMENT PLACING, STABILIZATION, SEAL COAT, AND ASPHALT PAVEMENT, APPLICATION OF PAVEMENT MARKINGS AND MISCELLANEOUS RELATED ITEMS OF WORK.

SPECIAL NOTICE
THE MILL CREEK METROPOLITAN PARK DISTRICT EXISTS TO PRESERVE OPEN SPACE AND NATURAL AREAS. CONSEQUENTLY, ANY WORK DONE IN THE PARK DISTRICT MUST BE DONE WITH THE PROTECTION OF THE ENVIRONMENT IN MIND. NO TREES, SHRUBS, PLANTS, WILDLIFE OR NATURAL FEATURES ARE TO BE DISTURBED DURING CONSTRUCTION OR REMOVAL OF MATERIALS. PLEASE CONTACT THE EXECUTIVE DIRECTOR OF THE MILL CREEK METROPOLITAN PARK DISTRICT FOR FURTHER INSTRUCTIONS. ANY MATERIAL THAT FALLS INTO WATERSHED IS TO BE REMOVED IMMEDIATELY. ALL HAZARDOUS MATERIALS SUCH AS FUELS, SOLVENTS, ETC. ARE TO BE HANDLED IN THE APPROVED MANNER SO AS NOT TO CAUSE POLLUTION OF THE ENVIRONMENT.

WORK REQUIRED
THE IMPROVEMENT OF TWO (2) PARKING LOTS IN MILL CREEK PARK (EAST GOLF HIKE & BIKE TRAIL PARKING LOT (WEST GOLF DRIVE) AND FLATS PARKING LOT) WORK INCLUDES EXCAVATION, EMBANKMENT, SUBGRADE COMPACTION, INSTALLATION OF AGGREGATE BASE, PAVEMENT PLACING, STABILIZATION, SEAL COAT, AND ASPHALT PAVEMENT, APPLICATION OF PAVEMENT MARKINGS AND MISCELLANEOUS RELATED ITEMS OF WORK.

MILL CREEK METROPARKS
VILLAGE OF MILL CREEK TWP.
MAHONING COUNTY, OH

LOCATION MAP
ITEM 202: ASPHALT PAVEMENT & BASE REMOVED, AS PER PLAN

This item shall include furnishing all labor, materials, and equipment necessary for the removal and disposal of all existing asphalt pavement, and as directed by the Metroparks Project Manager, in areas where partial asphalt pavement removal is directed, the contractor shall carefully sawcut a clean joint at the removal limit, if it does not occur at an existing joint.

ITEM 203: EXCAVATION, AS PER PLAN

This item shall include excavation of asphalt, aggregate, and/or soil material to an appropriate depth at locations, as directed and as per plan, locations along with desired grades and elevations are identified on the plans. Any damage to underground utilities must be repaired by the contractor's expense.

ITEM 204: REMOVAL, AS PER PLAN

This item shall include furnishing all labor, materials, and equipment necessary for the embankment of soil at the flats parking lot, as per plan, and as shown on the proposed development plans—see sheet 11/14.

ITEM 205: BORROW, AS PER PLAN

This item shall include furnishing all labor, materials, and equipment necessary for the installation of soil, borrow material, at the flats parking lot, the contractor shall make all arrangements for obtaining borrow and shall pay all costs involved.

ITEM 206: ACQUIRE, AS PER PLAN

This item shall include furnishing all labor, materials, and equipment necessary for the installation of aggregate base material throughout the existing golf nine & bike trail parking lot and the Flats parking lot. The aggregate base shall be delivered, staged, and to prepare the installation of the aggregate base material. The aggregate base shall also be installed to meet the existing grade at designated locations as shown on the proposed development plans—see sheet 7/14.

At the flats parking lot, the aggregate base material shall be installed to a minimum uniform depth of four (4") inches at designated locations as shown on the proposed development plan—see sheet 11/14.
GENERAL NOTES 2

ITEM 701: NO. 1 & NO. 2 STONE BASE, AS PER PLAN

This item shall include furnishing all labor, materials, and equipment necessary for the installation and compaction of No. 1 & No. 2 stone base material to a uniform minimum depth of eight (8") inches at the flats parking lot, at designated locations as shown on the proposed development plan—see sheet 11/14. Stone material type and quality shall be in accordance with GDOT item 703.

ITEM 407: TACK COAT

The tack coat application rate for existing pavement shall be 0.10 gallons per square yard. The application rate for new pavement shall be 0.30 gallons per square yard.

The contractor's attention is directed to section 407.03, 407.05, and 407.08 of the 2010 GCS. The distributor used for tack coat application must be capable of uniformly distributing the material, at the required rate in a consistent and uniformly distributed coating that is free of thin areas, streaks or ridges. The contractor shall demonstrate his ability to place the tack coat in the manner specified in a test section selected by the Metropolitan, and must make all adjustments required before placement may begin. All existing surfaces are to be cleaned thoroughly prior to application of tack coat.

The contractor shall maintain tracking onto adjacent pavement surfaces.

ITEM 441: ASPHALT CONCRETE INTERMEDIATE LEVELING COURSE, TYPE 1

The quantity for this item includes quantities to be used for all patching, leveling, and grade adjustment to existing and proposed asphalt pavement located as directed by the Metropolitans. All patching application of low areas shall be filled with asphalt prior to beginning the application of the uniform one and three-quarter (1.75") inch asphalt course (applicable at only the flats parking lot). The contractor shall make all grade adjustments necessary to provide smooth transitions to existing pavement areas.

Payment for this item will be made at the unit bid price, at the accepted quantity, and shall be full compensation for all work. No extra compensation shall be paid for work performed in existing pavement areas.

ITEM 441: ASPHALT CONCRETE PAVEMENT SURFACE COURSE, TYPE 1

The quantity for this item includes quantities to be used for uniformly applying a one and one-quarter (1.25") inch asphalt pavement overlay.

All joints shall be sealed with an asphalt crack filler, including edge of asphalt at concrete cut.

Payment for this item will be made at the unit bid price, at the accepted installed quantity, and shall be full compensation for all work. No extra compensation shall be paid for work performed in existing pavement areas.

BUILD-JOINTS

Provide build joints at locations shown on plans, the edges of all joints which have not been exposed after the substrate course is laid down, pavement removal, and asphalt concrete paving work shall be included, with the various asphalt items for payment.

LEAF & DEBRIS MAINTENANCE – GENERAL

During the pavement cleaning, tack coat, patching and pavement marking operations, the contractor shall have equipment and operator(s) on site to quickly and efficiently respond to the needs of these operations. The presence of leaves and debris on the surface of the pavement, equipment operation, and maintenance of the construction site requires that these operations be completed in a timely manner to facilitate the efficient use of the construction site.

ITEM 606: CONCRETE WALK, AS PER PLAN

This item shall include furnishing all labor, materials, and equipment necessary to install a concrete pavement walk at the flats parking lot. All materials, including concrete, shall be of Class C-4000 psi and shall be installed to a three and one-half (3.5") inch depth. The fire hydrant grate of the concrete walk shall match the fire hydrant grate of the adjacent asphalt parking lot and shall meet the top of curb along valley drive. The concrete walk shall have a cross slope of one percent (.18%), expansion joints shall be provided every (20') feet maximum.

ITEM 608: CONCRETE CURB, TYPE 5

This item shall include furnishing all labor, materials, and equipment necessary to install concrete curb at the flats parking lot at designated locations, as shown on the proposed development plan—see sheet 11/14. The concrete curb shall be constructed in accordance with GDOT item 609. Layout of the new section of curb shall be provided by the contractor and final approval may be given by the Metropolitans project manager. The contractor shall also make all grade adjustments necessary to provide smooth transitions to existing pavement areas.

ITEM 611: STRIPING & STOCKPOOLS, AS PER PLAN

This item shall include furnishing all labor and equipment necessary to place and mark striping, stockpools, for reuse, at the flats parking lot at locations as shown on the proposed development plan—see sheet 11/14—and as directed by the Metropolitans project manager.

ITEM 651: PARKING LOT, AS PER PLAN

This item shall include furnishing all labor and equipment necessary to place and mark striping, stockpools, for reuse, at the flats parking lot at locations as shown on the proposed development plan—see sheet 11/14—and as directed by the Metropolitans project manager.

ITEM 401: CONCRETE WALK AND CURB, AS PER PLAN

This item shall include furnishing all labor, materials, and equipment necessary to install a concrete pavement walk and curb at the flats parking lot. All materials, including concrete, shall be of Class C-4000 psi and shall be installed to a three and one-half (3.5") inch depth. The fire hydrant grate of the concrete walk shall match the fire hydrant grate of the adjacent asphalt parking lot and shall meet the top of curb along valley drive. The concrete walk shall have a cross slope of one percent (.18%), expansion joints shall be provided every (20') feet maximum.

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GENERAL NOTES 3

ADD ALTERNATE — ITEM 059: SEEDING AND MULCHING AS PER PLAN

GRASS SEEDING AND MULCHING SHALL BE PERFORMED AS STATED IN THE COST CMS AND AS DESCRIBED BELOW.

THE AREAS TO BE SEEDED INCLUDE ALL SHOULDER AREAS WITH EXPOSED TOPSOIL, OR ANY OTHER AREA DESIGNATED FOR SEEDING BY THE METROPARKS PROJECT MANAGER.

SEED SHALL BE DELIVERED TO THE SITE IN BAGS WITH THE MANUFACTURER’S LABEL, PRESENT. SEED SHALL BE EVENLY SPREAD OVER THE PREPARED AREAS AT THE RATE OF 10 POUNDS PER 1000 SQUARE FEET. SEED SHALL BE 100% TURFTYPE PERENNIAL, HYBRIDGRASS CONSISTING OF A MINIMUM 3-WAY BLEND (FOR EXAMPLE, EAGLE BLEND). MULCHING MATERIAL SHALL BE SECOND CUTTING STRAW, FREE FROM SEED HEADS. HYDROSEEDING WILL NOT BE PERMITTED ON THIS PROJECT.

PAYMENT QUANTITIES FOR THIS WORK WILL BE ESTABLISHED BY MEASUREMENT OF ACCEPTED WORKS OF SEEDING ALONG LINEAR AREAS. ANY AREAS DISTURBED BY THE CONTRACTOR IN EXCESS OF NORMAL OR DESIGNATED CONSTRUCTION LIMITS SHALL BE SEEDED BY THE CONTRACTOR BUT WILL NOT BE INCLUDED IN PAYMENT QUANTITIES. THE TOTAL MEASURED AREA WILL BE CHECKED WITH THE ACTUAL QUANTITIES OF SEED USED TO DETERMINE COMPLIANCE WITH THE SPECIFIED SEEDING RATE.

ITEM 713.14: DETECTABLE WARNING DEVICE, AS PER PLAN

THIS ITEM SHALL INCLUDE SEEDING ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO INSTALL ONE (1) DETECTABLE WARNING DEVICE AT THE FLATS PARKING LOT. DETECTABLE WARNINGS TO BE USED SHALL BE FRACOMAX COMPOSITE POLYMER, AGA SOLUTIONS, RED BRICK, #20109 (OR APPROVED EQUAL).

ADD ALTERNATE — ITEM SPECIAL: GATE WITH POST

THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO FABRICATE AND INSTALL THE STEEL GATE, STATIONARY POSTS AND CONCRETE FOOTINGS, AND TO PAINT AND INSTALL, REMOVABLE STEEL BOLLARDS AS SHOWN ON THE PLANS AT THE EAST GOLF HOLE & BIKE TRAIL PARKING LOT.

STEEL SHALL BE FURNISHED AND FABRICATED IN GENERAL CONFORMITY WITH CMS ITEM 513. LEVELS OF ALL STEEL SHALL BE MADE IN THE UNITED STATES. SHOP DRAWINGS ARE REQUIRED AND SHALL BE FURNISHED AT LEAST 7 DAYS PRIOR TO THE START OF FABRICATION. THE COMPLETED GATE ASSEMBLY SHALL BE GIVEN A METALLIZED (ZINC) COATING AND A WEATHERING FINISH COAT. THE FINISH COAT SHALL BE SILVER AS SELECTED BY THE METROPARKS FROM COLOR SAMPLES SUPPLIED BY THE CONTRACTOR.

THE STEEL TOP RAIL WILL BE FURNISHED BY THE METROPARKS FROM VARIOUS LENGTHS OF SALVAGED HISTORIC BRIDGE RAILING. THE CONTRACTOR SHALL TRANSPORT THE TOP RAIL FROM THE METROPARKS SERVICE FACILITY AT 996 BEARS DEN ROAD TO HIS STEEL FABRICATION. THE TOP RAIL SHALL BE CLEANED AND INCORPORATED INTO THE FINISHED RAILING AS SHOWN ON THE PLAN DETAILS. ANY WELDED SPACES NEEDED SHALL BE GROUND Flush WITH THE SURROUNDING MATERIAL PRIOR TO PAINTING.

THE CONTRACTOR SHALL FURNISH BOLLARDS AND APPLY A FINISH COAT OF PAINT, MATCHING THE GATE COLOR, TO BOLLARD AREAS THAT WILL REMAIN EXPOSED AFTER INSTALLATION. CAREFULLY TRANSPORT AND INSTALL PAINTED BOLLARDS AT LOCATIONS SHOWN ON THE PLANS.

PAYMENT FOR THIS ITEM WILL BE MADE AT THE LUMP SUM PRICE BID, AND SHALL BE FULL COMPENSATION FOR INCIDENTALS AND ALL OF THE ABOVE.

ITEM SPECIAL: 10’ DIAMETER CEDAR BOLLARD

THIS ITEM SHALL INCLUDE ALL LABOR AND EQUIPMENT NECESSARY TO INSTALL CEDAR BOLLARDS AS SHOWN ON THE PLANS.


ITEM SPECIAL: 8’X8’ PRESSURE TREATED REMOVABLE BOLLARD

THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS AND EQUIPMENT NECESSARY TO CONSTRUCT CONCRETE FOOTINGS AND INSTALL 8’X8’ PRESSURE TREATED REMOVABLE BOLLARDS AS SHOWN ON THE PROPOSED DEVELOPMENT PLAN—SEE SHEET 11/14. THE 8’X8’ PRESSURE TREATED BOLLARD SHALL BE SOUTHERN YELLOW PINE, #2—SEE DETAIL SHEET 13/14 FOR INSTALLATION INFORMATION.

ADD ALTERNATE — ITEM SPECIAL: WOODY CHIP MULCH

THE CONTRACTOR SHALL PLACE A THREE INCH (3") DEPTH OF WOODY CHIP MULCH AT THE FLATS PARKING LOT AT LOCATIONS SHOWN ON THE PROPOSED DEVELOPMENT PLAN—SEE SHEET 11/14.

WOOD CHIP MULCH MATERIAL WILL BE MADE AVAILABLE TO THE CONTRACTOR BY THE METROPARKS AT THE SERVICE FACILITY LOCATED AT 996 BEARS DEN ROAD. THE CONTRACTOR SHALL LOAD AND TRANSPORT THE MATERIAL TO THE PROJECT SITE FOR USE.

PAYMENT FOR THIS ITEM WILL BE MADE AT THE UNIT PRICE BID, AND SHALL INCLUDE THE LOADING, TRANSPORTATION AND PLACEMENT OF WOODY CHIP MULCH MATERIAL.

ITEM SPECIAL: STUMP REMOVED, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL LABOR AND EQUIPMENT NECESSARY FOR THE REMOVAL OF TREE STUMPS FROM BOTH THE EAST GOLF HOLE & BIKE TRAIL PARKING LOT AND THE FLATS PARKING LOT.

ITEM SPECIAL: RETLOCATE STONES, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL LABOR AND EQUIPMENT NECESSARY FOR THE Relocation OF EXISTING STONES AT THE FLATS PARKING LOT. THE STONES SHALL BE MOVED AND RELOCATED AT LOCATIONS SHOWN ON THE FLATS PARKING LOT AS DIRECTED BY THE METROPARKS PROJECT MANAGER.

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### GENERAL SUMMARY

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EAST GOLF HIKE & BIKE TRAIL PARKING LOT (WEST GOLF DRIVE)

SCALE: 1" = 40'
44 STANDARD STALLS, 4 DISABLED STALLS
1698 SQUARE YARDS

ESTIMATED QUANTITIES

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TOTALS: 6 89.5 106 77 65 1028 4 48 8 20 155 1
THE FLATS PARKING LOT

SCALE: 1" = 30'
20 STANDARD STALLS, 2 HANDICAP STALLS
1161 SQUARE YARDS
THE FLATS PARKING LOT

SCALE: 1" = 30'
20 STANDARD STALLS, 2 DISABLED STALLS
1181 SQUARE YARDS

PROJECT NOTES:
1. ALL PARKING LOT PAVEMENT MARKINGS SHALL BE YELLOW. PARKING LOT STALL MARKING LINES SHALL BE CONTINUOUS LINES, FOUR (4) INCHES IN WIDTH AND EIGHTEEN (18) FEET LONG UNLESS OTHERWISE SPECIFIED OR DIRECTED. CROSS-HATCHES SHALL BE CONTINUOUS, ANGLED AT 45°, AND THREE (3) FOOT O.C. DISABLED SYMBOLS SHALL BE FORTY-TWO (42) INCHES HIGH AND LOCATED IN THE CENTER OF THE STALL.
GATE WITH POST AND BOLLARDS

FRONT

FACTOR DETAILS

HINGE POST SECTION Y

NTS.

GATE SECTION X

NTS.

CODED NOTES

A. STEEL GATE WITH INTEGRAL HINGE POST: SEE GENERAL NOTES.

B. STATIONARY HINGE POST: FURNISH 3" I.D. GALVANIZED STEEL PIPE WITH OUTSIDE DIAMETER OF APPROXIMATELY 3.5 INCHES. INSTALL PLUMB INTO CONCRETE FOOTING, COAT WITH WHITE GREASE AT TOP AND AT LEVEL OF ADJUSTMENT BOLTS AT TOP AND BOTTOM AS DIRECTED.

C. 4.5" O.D. REMOVABLE STEEL BOLLARD, WITH GROUND SLEEVE. INSTALL SLEEVE IN FOOTING FLUSH WITH THE TOP OF CONCRETE IN ACCORDANCE WITH MANUFACTURER’S SPECIFICATIONS. PAINT POST TO MATCH GATE AND MOUNT INTO SLEEVE.

D. CAST IN PLACE CONCRETE FOOTING: FOOTINGS SHALL BE 5 FEET DEEP X 12 INCHES IN DIAMETER EXCEPT AS SHOWN. FLOORING CLASS Q1. FINISH CONCRETE Flush WITH SURROUNDING ASPHALT SURFACE.

E. SALVAGED TOP RAIL: THE METROPOLITAN WILL FURNISH SALVAGED STEEL TOP RAIL IN SUITABLE LENGTHS TO BE INSTALLED AS SHOWN. CUT, WELD, GRIND AND PAINT THE RAIL AS NECESSARY AND AS DIRECTED. SPORT GATE TOP ANGLE LEGS AND TOP RAIL AS NEEDED TO COMPLETE THE ASSEMBLY.

NORTH (FRONT) GATE ELEVATION

SCALE: NTS

D1

0 1 2 3 4 5

SCALE IN FEET
Details assume non-settled approach slabs. Smoothing of the profile for settlement is required per plan grades or as directed by the Engineer.

**TRANSITIONING AT STRUCTURES**

**PLAN**

**MERGING EDGE OF PAVEMENT WIDENING WITH EDGE OF EXISTING PAVEMENT**

**SECTION A-A**

**COURSE DETAIL FOR WIDENING**

**LEGEND**

1. The extended width OI of a base or subbase lift shall be equal to the depth (D) of the overlapping lift or D, whichever is greater, or as shown on the plans.

2. The extended width shall be equal to the total thickness of the surface and intermediate courses, or D, whichever is greater.

3. Permissible removal and replacement
LAPPING LONGITUDINAL JOINTS (see notes)

Using Metal Adjusting Rings
Using Concrete or Mortar

MANHOLEs ADJUSTED TO GRADE

GUTTER FINISH

NOTES

GENERAL: Lap all longitudinal joints as shown regardless of the number of courses being placed. Do not construct a longitudinal joint directly above and in line with the longitudinal joint of previously placed material.

METAL ADJUSTING RINGS:
Metal adjusting rings shall
(a) Attach securely to the existing frame by welding or mechanical devices,
(b) Consist of the same material having an integral flange and seat, and be fabricated with a sturdy connection between the seat and ring and
(c) Provide an even seat for the manhole cover.

In addition, the adjusting ring type shall be a depth acceptable to the local governmental agency responsible for street and sewer maintenance. Any installation unacceptable to the Engineer shall be replaced by the Contractor at his expense.

PAYMENT: The Department will pay for manholes adjusted to grade using item 301 manhole, Catch Basin, or Joint Adjusted To Grade. The Department will pay for longitudinal joint preparation using item 314 Longitudinal Joint Preparation.
NOTES

GENERAL: This drawing shows alternate types of curb that may be used on various types of pavement. The typical section of the project shown the Type to be used, also the thickness of the edge of the pavement or the edge of the curb and gutter section.

JOINTS: 1" expansion joints shall extend up to the top of the curb and shall be constructed in the curb and gutter section in such a manner that the joint seal will extend the full width of the gutter and into the curb face a sufficient distance to seal the joint to an elevation of least 3" above the flow line of the gutter. Dowel bars shall be used in the curb and gutter section of expansion joints and to the surface of the pavement.

Transverse expansion joint material shall meet the requirements of Table 705.03.

GUTTER PLATE THICKNESS: Thickness of gutter plate "t" shall be 3" unless otherwise shown on plans.

TOLERANCES: Dimensional tolerances are as follows:

- Carbon "x" to 3/8"
- Gutter "x" to 1/8"

LEGEND

1. Expansion joint material and joint sealers are not required for the portion of the curb that is adjacent to a flexible pavement type. Both materials are required, as detailed, for the full height of rigid pavement and concrete bases.

2. Butt joints shall be provided between combined curb-and-gutter and new or existing rigid pavements, with tie bars or hook bolts provided at intervals of 1'-0". See Section 905.01 for details of tie bars and hook bolts. If the combined curb-and-gutter adjusts a new rigid base or an existing rigid base or pavement that is to be surfaced with asphalt concrete, a butt joint shall also be provided. However, tie bars or hook bolts shall be omitted when the vertical overlap of 1'-0" in detail below between the curb-and-gutter and rigid pavement is less than 1'-0".

3. Combined curb-and-gutter shall be provided as an alternative to regular curb-and-gutter where there is a deficiency of space and a need for a functional separation between the roadway and the sidewalk.