

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON NAVD 88 (ODOT VRS GEOD 18).

UTILITY STATEMENT

THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. CHOICE ONE ENGINEERING CORPORATION MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMprise ALL SUCH UTILITIES IN THE AREA, EITHER IN-SERVICE OR ABANDONED. FURTHER, CHOICE ONE ENGINEERING CORPORATION DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED, ALTHOUGH CHOICE ONE ENGINEERING CORPORATION DID LOCATE AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. CHOICE ONE ENGINEERING CORPORATION HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

UTILITY OWNERSHIP

STORM, SEWER, WATER, STREETS, AND TRAFFIC SIGNALS

CITY OF WEST CARROLLTON
300 E CENTRAL AVE
WEST CARROLLTON, OHIO 45449
ATTN: RICH NORTON
(937) 859-5184

CITY OF MIAMISBURG
20 E CENTRAL AVE
MIAMISBURG, OHIO 45342
ATTN: BOB STANLEY
(937) 847-6531

CITY OF MORaine
4200 DRYDEN RD
MORaine, OHIO 45439
ATTN: MICHAEL DAVIS
(937) 535-1002

CITY OF DAYTON
101 WEST THIRD ST
DAYTON, OHIO 45402
ATTN: JOE WEINEL
(937) 333-4218

DAYTON WATER AND SEWER
320 W. MONUMENT AVE
DAYTON, OHIO 45402
ATTN: EMAD TOUFIKS
(937) 333-2890

MONTGOMERY COUNTY ENVIRONMENTAL SERVICES
1850 SPAULDING ROAD
KETTERING, OHIO 45432
ATTN: ED SCHLAACK
(937) 781-2632

OHIO UTILITIES PROTECTION SERVICE 2 WORKING DAYS BEFORE YOU DIG CALL TOLL FREE 800-362-2764

THE CONTRACTOR SHALL CONTACT THE CITY OF DAYTON, DEPARTMENT OF WATER, CONSTRUCTION INSPECTION, 320 WEST MONUMENT AVENUE, DAYTON, OHIO 45402, AT (937)-333-3725 PRIOR TO BEGINNING WATER SERVICE WORK.

ESTIMATED AND CONTINGENT QUANTITIES

THE CONTRACTOR SHALL NEITHER ORDER MATERIALS NOR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

WORK LIMITS

ALL WORK SHALL BE WITHIN EXISTING OR PROPOSED RIGHT-OF-WAY AND/OR CONSTRUCTION LIMITS UNLESS OTHERWISE INSTRUCTED BY THE MIAMI CONSERVANCY DISTRICT.

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC CONTROL AND TEMPORARY TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS SHALL BE PROVIDED BY THE CONTRACTOR WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

EXISTING UTILITY CONFLICT NOTE

IT IS THE INTENT THAT ALL KNOWN CONFLICTING UTILITY POLES AND UNDERGROUND TELEPHONE, GAS, ELECTRIC, AND CABLE SHALL BE RELOCATED BY OTHERS PRIOR TO CONSTRUCTION.

PROPERTY POINTS AND SURVEY MONUMENTS

CARE SHALL BE TAKEN BY THE CONTRACTOR TO SAFEGUARD ANY PROPERTY POINTS OR OTHER SURVEY REFERENCE MARKS ENCOUNTERED DURING CONSTRUCTION OF THIS PROJECT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RESET ANY PROPERTY POINT OR SURVEY MONUMENT WHICH IS DISTURBED AS A RESULT OF CONSTRUCTION OF THIS PROJECT. THE PROPERTY POINTS AND SURVEY MONUMENTS SHALL BE RESET UNDER THE SUPERVISION OF A REGISTERED PROFESSIONAL SURVEYOR.

PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO THE OTHER ITEMS PAID FOR IN THIS PROJECT.

SEEDING AND MULCHING

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

659, TOPSOIL	33 CU. YD.
659, SEEDING AND MULCHING, CLASS 1	300 SQ. YD.
659, REPAIR SEEDING AND MULCHING	15 SQ. YD.
659, INTER-SEEDING	15 SQ. YD.
659, COMMERCIAL FERTILIZER	0.04 TON
659, LIME	0.06 ACRE
659, WATER	1.66 M. GAL.

PROTECTION OF THE GREAT MIAMI RIVER RECREATION TRAIL

SIGNED DETOURS WILL BE PROVIDED TO DIRECT TRAIL USERS AT EACH OF THE PROJECT LOCATIONS. APPROPRIATE TEMPORARY CONSTRUCTION FENCING, BARRIERS AND/OR SIGNAGE SHALL BE INSTALLED ALONG PROPOSED CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT TRAIL USERS.

ACCESS TO THE GREAT MIAMI RIVER RECREATION TRAIL, OUTSIDE OF THE CONSTRUCTION LIMITS, SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.

PROTECTION OF THE GREAT MIAMI RIVER WATER TRAIL

THE CONTRACTOR SHALL NOT TAKE ANY ACTION THAT PREVENTS OR IMPEDES ON RIVER ACCESS AT THE GREAT MIAMI RIVER WATER TRAIL.

PROTECTION OF ISLAND METOPARK AND KETTERING FIELD

THE CONTRACTOR SHALL NOT RESTRICT ACCESS TO ISLAND METOPARK AND KETTERING FIELD. THE CONTRACTOR SHALL NOT STAGE EQUIPMENT OR MATERIALS WITHIN ISLAND METOPARK OR KETTERING FIELD.

ITEM 608 CURB RAMP, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF THE WORK AS DESCRIBED IN OHIO DEPARTMENT OF TRANSPORTATION ITEM 608 WALKS, CURB RAMPS, AND STEPS, EXCEPT AS HEREIN MODIFIED.

CURB RAMPS SHALL HAVE A MINIMUM THICKNESS OF 7", ALSO 6" OF 411 STABILIZED CRUSHED AGGREGATE SATURATED WITH WATER PRIOR TO COMPACTION SHALL BE PLACED UNDER ALL PROPOSED CURB RAMPS.

REFERENCE ODOT STANDARD CONSTRUCTION DRAWING BP-7.1 FOR MORE INFORMATION. ALL CURB RAMPS SHALL MEET ADA REQUIREMENTS.

PAYMENT FOR ITEM 608 CURB RAMP AS PER PLAN, FOR ALL OPERATIONS DESCRIBED ABOVE, SHALL BE AT THE CONTRACT SQUARE FOOT BID PRICE AND SHALL INCLUDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED TO COMPLETE THIS ITEM OF WORK.

ITEM 630 SIGNING MISC.: SOLAR-POWERED BORDER-ENHANCED LED SIGN ASSEMBLY

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLAR POWERED BORDER ENHANCED LED SIGN ASSEMBLY. THE SIGN ASSEMBLY SHALL BE SOLAR POWERED WITH FLASHING YELLOW LEDS. THE UNIT SHALL BE SELF-POWERED BY SOLAR PANELS AND BATTERIES WITH NO EXTERNAL ELECTRICAL POWER INSTALLATION. THE UNIT SHALL BE COMPLIANT WITH THE MOST CURRENT OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD).

THE FOLLOWING CRITERIA SHALL BE MET:

1. THE NEW UNIT SHALL ATTACH SECURELY TO THE PROPOSED SIGN SUPPORT USING A TAMPER RESISTANT FASTENING SYSTEM. SPECIAL TOOLS NEEDED FOR THE TAMPER RESISTANT FASTENING SYSTEM SHALL BE SUPPLIED WITH EACH SIGN.
2. EACH SIGN UNIT SHALL BE IDENTIFIED WITH THE MANUFACTURER'S NAME, DATE OF MANUFACTURE, AND SERIAL NUMBER ON THE BACK SIDE.
3. THE SIGN UNIT SHALL BE VISIBLE AT A MINIMUM OF 1/4 MI. DURING ALL CONDITIONS.
4. THE SIGN UNIT SHALL INCORPORATE CIRCUITRY AND A PHOTOCELL TO ENSURE THAT IS HAS BRIGHTNESS ADJUSTMENT DURING DAY, DUSK, AND AT NIGHT.
5. THE LENS OF THE LED UNIT SHALL BE CAPABLE OF WITHSTANDING ULTRAVIOLET LIGHT (DIRECT SUNLIGHT) EXPOSURE FOR A MINIMUM TIME PERIOD OF FIVE YEARS WITHOUT EXHIBITING EVIDENCE OF DETERIORATION.
6. THE LENSES SHALL WITHSTAND A 3 FOOT DROP TEST ONTO A HARD SURFACE AND SHALL BE A MINIMUM OF 1/4 INCH THICK AND FREE OF BUBBLES AND IMPERFECTIONS. THE LENSES SHALL BE SMOOTH ON THE OUTSIDE, WITH NO EXTERNAL FACETS TO PREVENT DIRT AND DEBRIS BUILD-UP.
7. IF LENSES ARE TINTED, THEY SHALL MATCH THE WAVELENGTH (CHROMATICITY) OF THE LED.
8. THE INDIVIDUAL LED LIGHT SOURCES SHALL BE WIRED SO THAT A CATASTROPHIC FAILURE OF ONE LED LIGHT SOURCE WILL NOT RESULT IN THE LOSS OF MORE THAN ONE LED LIGHT SOURCE IN THE SIGN UNIT.
9. LED UNITS AND ASSOCIATED ON-BOARD CIRCUITRY SHALL CONFORM TO THE REQUIREMENTS IN FEDERAL COMMUNICATIONS COMMISSION (FCC) TITLE 47, SUB PART B, SECTION 15 REGULATIONS CONCERNING THE EMISSION OF ELECTRONIC NOISE.
10. LEDS SHALL BE RATED FOR USE IN THE AMBIENT OPERATING TEMPERATURE RANGE OF -40OF TO +166OF. (-40OC TO +74OC)
11. THE LED'S WIRING SHALL BE SEALED WATERTIGHT TO ELIMINATE DIRT CONTAMINATION AND ALLOW FOR SAFE HANDLING IN ALL WEATHER CONDITIONS. THE LEDS SHALL BE SEALED AGAINST DUST AND MOISTURE INTRUSION AS PER THE REQUIREMENTS OF NEMA STANDARD 250-1991 FOR TYPE 4 ENCLOSURES AND TO PROTECT ALL INTERNAL LED AND ELECTRICAL COMPONENTS.
12. THE SIGN LEDS SHALL DISPLAY A MINIMUM OF 500,000 MCD FOR DAYTIME VISIBILITY.

ITEM 630 SIGNING MISC.: SOLAR-POWERED BORDER-ENHANCED LED SIGN ASSEMBLY (CONTINUED)**MATERIALS -**

FURNISH A COMPLETE ASSEMBLY, CONSISTING OF, BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS, AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.). THE SIGN ASSEMBLY INCLUDES THE FOLLOWING ITEMS:

1. BATTERY AND SOLAR PANELS
2. BATTERY UNIT SHALL BE A 12VDC, 35 AHR MINIMUM, SEALED GEL OR AGM LEAD ACID BATTERY. BATTERIES SHALL HAVE A WRITTEN TWO YEAR FULL REPLACEMENT WARRANTY.
3. THE SOLAR PANEL SHALL PROVIDE A MINIMUM OF 40 WATTS PEAK TOTAL OUTPUT.
4. THE SOLAR PANEL SHALL BE MOUNTED TO AN ALUMINUM PLATE AND BRACKET AT AN ANGLE OF 45 DEGREES-60 DEGREES TO PROVIDE MAXIMUM OUTPUT.
5. ALL FASTENERS USED SHALL BE ANTI-VANDAL.

WARRANTY -

1. THE LED ENHANCED SIGN UNIT SHALL BE REPAIRED OR REPLACED BY THE MANUFACTURER IF IT EXHIBITS A FAILURE DUE TO WORKMANSHIP OR MATERIAL DEFECTS WITHIN 2 YEARS OF FIELD OPERATION.

2. THE MANUFACTURER SHALL PROVIDE A WRITTEN WARRANTY AGAINST DEFECTS IN MATERIALS, WORKMANSHIP, AND LUMINOUS INTENSITY FOR THE LED ENHANCED SIGN UNIT FOR A PERIOD OF 2 YEARS AFTER INSTALLATION. A REPLACEMENT LED ENHANCED SIGN UNIT SHALL BE PROVIDED WITHIN 10 DAYS AFTER RECEIPT OF FAILED UNIT AT NO COST, EXCEPT THE COST OF SHIPPING THE FAILED UNIT.

PAYMENT FOR ITEM 630 SIGNING MISC.: SOLAR-POWERED BORDER ENHANCED LED SIGN ASSEMBLY SHALL BE MADE AT THE CONTRACT BID PRICE, EACH, COMPLETELY INSTALLED IN PLACE AND FULLY FUNCTIONAL INCLUDING ALL MATERIAL, LABOR, AND EQUIPMENT REQUIRED TO FURNISH THE SIGN WITH SOLAR POWERED LED's AND MOUNT THE SOLAR UNIT TO THE SIGN SUPPORT PER THE MANUFACTURERS RECOMMENDATIONS.

ITEM 630 - SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY, AS PER PLAN

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY PER ODOT STD. DWG. TC-87.10. THE FLASHING UNIT SHALL BE SOLAR POWERED, PEDESTRIAN ACTIVATED, AND 2-SIDED WITH TWO LED ARRAY BASED YELLOW INDICATIONS ON EACH SIDE. MULTIPLE UNITS SHALL BE WIRELESSLY CONTROLLED AND SYNCHRONIZED. THE UNIT SHALL BE COMPLIANT WITH THE MOST CURRENT OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD) AND FHWA INTERIM APPROVALS FOR RRFBS (IA-21).

GENERAL REQUIREMENTS - EACH RRFB SHALL CONSIST OF TWO RAPIDLY FLASHED RECTANGULAR-SHAPED YELLOW INDICATIONS HAVING LED ARRAY BASED LIGHT SOURCE.

EACH RRFB SHALL BE A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.).

EACH RRFB SHALL CONTAIN A PEDESTRIAN INDICATION LIGHT VISIBLE BY THE PEDESTRIAN IN THE DIRECTION OF TRAVEL.

FUNCTIONAL REQUIREMENTS - EACH RRFB SHALL UTILIZE SOLAR POWER.

EACH RRFB SHALL BE ACTIVATED BY ADA COMPLIANT PUSHBUTTONS.

THE RRFB SHALL BE NORMALLY DARK, SHALL INITIATE OPERATION ONLY UPON PEDESTRIAN ACTUATION, AND SHALL CEASE OPERATION AFTER A PREDETERMINED TIME LIMIT (BASED ON OMUTCD PROCEDURES).



CHOICE ONE ENGINEERING

DESIGNER

IJW

REVIEWER

NNS 7-18-2025

PROJECT ID

119384

SHEET

TOTAL

P.3

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