UTILITIES

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

CITY OF CLEVELAND DIVISION OF WATER 1201 LAKESIDE AVENUE CLEVELAND, OHIO 44114 PHONE: 216-664-2444

THE ILLUMINATING COMPANY 6896 MILLER ROAD, SUITE 101 BRECKSVILLE, OHIO 44141 PHONE: 216-622-9800

SPECTRUM / TIME WARNER 1100 EAST 222ND STREET EUCLID, OHIO 44117 PHONE: 800-993-2225

DOMINION ENERGY 320 SPRINGSIDE DRIVE, SUITE 320 AKRON, OHIO 44333 PHONE: 877-542-2630

ADESTA (G4S INTEGRATION) 6500 ROCKSIDE ROAD, SUITE 350 INDEPENDENCE, OHIO 44131 PHONE: 216-520-3039

CITY OF MAYFIELD HEIGHTS 6154 MAYFIELD ROAD MAYFIELD HEIGHTS, OHIO 44124 PHONE: 440-442-2626

NORTHEAST OHIO REGIONAL SEWER DISTRICT 3900 EUCLID AVENUE CLEVELAND, OHIO 44115 PHONE: 216-881-6600

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64. O.R.C.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY
BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO
MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO
NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES
BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. IN ADDITION,
DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER
THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE
CUSTOMARILY AND NECESSARILY ATTENDANT TO THE
REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

WORK LIMITS

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

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT OF WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. THE CONSTRUCTION LIMITS ARE IDENTIFIED IN THE PLAN.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS, AS DEFINED ABOVE, WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

CLEARING AND GRUBBING, AS PER PLAN

THE CITY SHALL HAVE ALL TREES CUT DOWN PRIOR TO APRIL IST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND DISPOSING OF ANY DOWNED TREES LEFT ON SITE BY THE CITY AND REMOVAL OF STUMPS. A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN.

SEEDING AND MULCHING

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

| ITEM 659, SEEDING AND MULCHING, CLASS 1 | 815 SY |
|---|-----------|
| ITEM 659, TOPSOIL | 91 CY |
| ITEM 659, COMMERCIAL FERTILIZER | 0.11 TON |
| ITEM 659, WATER | 5 M GAL |
| ITEM 832, EROSION CONTROL | 7500 EACH |

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL WITHIN THE CONSTRUCTION LIMITS. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS, AS DETERMINED VIA CADD AREAS.

EROSION CONTROL CALCULATIONS

<u>ITEM 659 - TOPSOIL FURNISHED AND PLACED</u> 815 SY x (III CY / 1000 SY) = 91 CY

<u>ITEM 659 - COMMERCIAL FERTILIZER</u> 815 SY x (1 TON / 7410 SY) = 0.11 TONS

<u>ITEM 659 - WATER</u> (2 × 815 SY) × (0.0027 M GAL / 1 SY) = 5 M GAL

ITEM 609 - 4" CONCRETE WALK, AS DIRECTED

A CONTINGENCY QUANTITY FOR ITEM 609 - 4" CONCRETE WALK HAS BEEN PROVIDED TO ENSURE THE PROPOSED CURB RAMPS, LANDINGS, AND PROPOSED SIDEWALK CAN BE SMOOTHLY TRANSITIONED TO THE EXISTING SIDEWALK. THE QUANTITIES SHALL NOT BE USED UNLESS DIRECTED BY THE ENGINEER.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 609 - 4" CONCRETE WALK

<u>500 SF</u>

<u>ENDANGERED BAT HABITAT</u>

THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY ENDANGERED NORTHERN LONG-EARED AND INDIANA BAT, AND THE STATE ENDANGERED LITTLE BROWN AND TRICOLORED BATS. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT AND ORC 1531.25. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

ITEM 253 PAVEMENT REPAIR AS PER PLAN

THIS ITEM SHALL BE AS SPECIFIED IN ODOT CMS MANUAL WITH THE FOLLOWING EXCEPTIONS:

ASPHALT PAVEMENT REPAIR DEPTH SHALL BE 3 INCHES

ASPHALT REMOVED SHALL BE REPLACED WITH 1.5 INCHES ODOT 441 TYPE 1 INTERMEDIATE ASPHALT AND 1.5 ODOT 441 TYPE 1 SURFACE ASPHALT TO MEET EXISTING ADJACENT PAVEMENT.

ALL JOINTS SHALL BE SEALED AS PER SPECIFICATION

FULL DEPTH SAW CUTTING SHALL BE CONSIDERED INCIDENTAL TO THE ITEM

ITEM 255 FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QC1. AS PER PLAN

THIS ITEM SHALL BE AS SPECIFIED IN THE ODOT CMS MANUAL WITH THE FOLLOWING EXCEPTIONS:

FULL DEPTH SAW CUTTING SHALL BE CONSIDERED INCIDENTAL TO THE ITEM

HOOK BOLTS SHALL BE USED, SHALL BE 5/8" X 8" FOR CONCRETE AS NEEDED

DOWEL BARS SHALL BE USED, SHALL BE 1" X 18" FOR CONCRETE AS NEEDED

CO

5 40

| <u> </u> | <u></u> | 1 | 1 | SHEE | T NUM. | | ı | | PAF | RT. | ITEM | ITEM | GRAND | UNIT | DESCRIPTION | SEE SHEET |
|-------------|----------------|---|----|----------|--------|---|----------|---|----------------|-----|------------|----------------|----------------|------------|--|--------------|
| 5 | 10 | | 15 | | 26 | | | | 01/MPO/ OT | | | EXT | TOTAL | | | NO. |
| | | | | | | | | | | | | | | | ROADWAY | |
| | | | | | | | | | LS | | 201 | 11001 | LS | | CLEARING AND GRUBBING, AS PER PLAN | 5 |
| | , | | | | | | | | | | | | 1 | FACU | | |
| | 24 | | | | 292 | | <u> </u> | | 1 316 | | 202 202 | 20010 23000 | 316 | EACH SY | HEADWALL REMOVED PAVEMENT REMOVED | |
| | 4,069 | | | | | | | | 4,069 | | 202 | 30000 | 4,069 | SF | WALK REMOVED | |
| | 624 | | | | | | | | 624 | | 202 | 32000 | 624 | FT | CURB REMOVED | |
| | | | 47 | | | | | | 47 | | 203 | 10000 | 47 | CY | EXCAVATION | |
| | | | 11 | | | | | | 11 | | 203 | 20000 | 11 | CY | EMBANKMENT | |
| | 21 | | | | 292 | | | | 313 | | 204 | 10000 | 313 | SY | SUBGRADE COMPACTION | |
| 500 | 4 172 | | | | | | | | 1 672 | | 000 | 10000 | 4.672 | C.F. | AN CONCRETE WALK | |
| 500 | 4,132 3,417 | | | | | | <u> </u> | | 4,632 3,417 | | 608 608 | 10000 52000 | 4,632 3,417 | SF SF | 4" CONCRETE WALK CURB RAMP | 5 |
| | | | | | | | | | | | | | | | | |
| | 5 | | | | | | | | 5 | | SPECIAL | 61199700 | 5 | EACH | GAS VALVE BOX ADJUSTED TO GRADE | |
| | 1 | | | | | | | | 1 | | 638 | 10800 | 1 | EACH | VALVE BOX ADJUSTED TO GRADE | |
| | | | | | | | | | | | | | | | FROCION CONTROL | |
| | | | | | | | | | | | | | | | EROSION CONTROL | |
| 91 | | | | | | | | | 91 | | 659 | 00300 | 91 | CY | TOPSOIL | |
| 815 0.11 | | | | | | | 1 | | 815 0.11 | | 659 659 | 00500 20000 | 815 0.11 | SY TON | SEEDING AND MULCHING, CLASS I COMMERCIAL FERTILIZER | |
| 5 | | | | | | | | | 5 | | 659 | 35000 | 5 | MGAL | WATER | |
| 7,500 | | | | | | | | | 7 , 500 | | 832 | 30000 | 7,500 | EACH | EROSION CONTROL | |
| | | | | | | | | | | | | | | | | |
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| | 0.2 | | | | | | 1 | | 0.2 | | 602 | 20000 | 0.2 | CY | CONCRETE MASONRY | |
| | 25 | | | | | | | | 25 | | 611 | 04600 | 25 | FT | 12" CONDUIT, TYPE C | |
| | 20 | | | | | | | | 20 | | | | | | | |
| | 1 | | | | | | | | 1 | | 611 | 99654 | 1 | EACH | MANHOLE ADJUSTED TO GRADE | |
| | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | PA VEMENT Y | |
| | 53 | | | | | | | | 53 | | 253 | 01001 | 53 | SY | PAVEMENT REPAIR AS PER PLAN | |
| | 33 | | | | | | <u> </u> | | 33 | | | | 33 | | | |
| | 72 | | | | | | | | 72 | | 255 | 10011 | 72 | | FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS QCI AS PER PLAN | |
| | 2 | | | | 33 | | | | 35 | | 304 | 20000 | 35 | CY | AGGREGATE BASE | |
| | 21 | | | | 292 | | | | 313 | | 451 | 13010 | 313 | SY | 8" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P | |
| | 61 | | | | | | | | 61 | | 609 | 14000 | 61 | | CURB, TYPE 2-A | |
| | 01 | | | | | | | | 01 | | 003 | 14000 | 01 | | | |
| | 563 | | | | | | | | 563 | | 609 | 26000 | 563 | FT | CURB, TYPE 6 | |
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|--------------|--------------|------------------------|------------------------|------------|------------|------------|------------|----------|-------------|-----------------------------|--|-----------|--|------------------|-------------|------------|------------|----------|--------------|----------------|--------------------|--------------------------|
| 055 | CUEET | CTA | TION | lu lu | REMOVED | REMOVED | REMOVED | REMOVED | COMPACTION | REPAIR PLAN | PAVEMENT NO RIGID CLASS OCI | E BASE | CONCRETE ASS QC IP | MASONRY | TE WALK | RAMP | PE 2-4 | TYPE 6 | , TYPE C | ED TO GRADE | BOX ADJUSTED 7 | BOX ADJUSTED TO GRADE |
| REF NO. | SHEET NO. | STA | TION | SIDE | HEADWALL F | PAVEMENT F | WALK REN | CURB REM | SUBGRADE CO | PAVEMENT REPAIR AS PER PLAN | FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS OCI | AGGREGATE | 8" REINFORCED CONCRE PAVEMENT, CLASS QC | CONCRETE MASONRY | 4" CONCRETE | CURB R | CURB, TYPE | CURB, T | 12" CONDUIT, | NHOLE ADJUSTED | VAL VE BOX GRAD | VAL VE BOX AD GRAD |
| | | FROM | TO | | EACH | SY | SF | FT | SY | SY | SY |) | % Q SY | CY | SF | SF | FT | FT | FT | EACH | EACH EACH | EACH |
| C1 | 11 | 0+43.32 | 0+58.54 | RT | | | | 16 | | 4 | | | | | | | | 16 | | | | |
| D1 D2 | 11 17 | 2+13 194+ | 2+20 | R/L LT | | | | | | | | | | 0.2 | | | | | 25 | 1 | | |
| R1 | 11 | 0+43.32 | 0+58.54 | RT | | | 107 | | | | | | | | | | | | | | | |
| R2 | 11 | 2+13 | | RT | 1 | | | | | | | | | | | | | | | | | |
| SW1 SW2 | 11 | 0+45 1+23 | 1+02 2+53 | R/L R/L | | | | 20 37 | | 4 | | | | | 324 1075 | 150 222 | | 20 37 | | | | |
| SW3 | 11 11 | 2+73 | 3+32 | R/L | | | 152 | 38 | | 8 4 | 4 | | | | 292 | 380 | | 38 | | | 2 | |
| SW4 SW5 | 11 11 | 3+59 4+42 | 3+90 4+84 | R/L R/L | | | 306 165 | 28 | | | 6 | | | | 102 378 | 358 | | 28 | | | 1 | |
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| SW6 SW7 | 11 16 | 5+48 3+70.31 | 6+55 3+83.31 | R/L LT | | | 491 116 | 13 | | 3 | | | | | 966 56 | 56 | | 13 | | | 2 | / |
| SW8 | 16 | 3+69.92 | 3+82.92 | RT | | | 80 | 13 | | 3 | | | | | 21 | 56 | | 13 | | | | |
| SW9 | 17 | 109+39 | 194+35 | LT | | 11 | 254 | 34 | 10 | 8 | | 1 | 10 | | 51 | 325 | 20 | 34 | | | | |
| SW10 | 17 | 194+05.19 | 194+29.62 | RT | | 11 | 106 | 53 | 10 | 5 | | 1 | 10 | | | 113 | 29 | 24 | | | | |
| SW11 | 17 | 193+14.59 | 193+42.24 | RT | | 14 | 145 | 60 | 11 | 6 | | 1 | 11 | | | 163 | 32 | 28 | | | | |
| SW12 SW13 | 17 19 | 109+38.54 217+53.91 | 193+02.89 10+60.31 | R/L LT | | | 299 335 | 37 25 | | 8 | 6 | | | | 48 176 | 309 185 | | 37 25 | | | | |
| SW14 | 19 | 10+52.64 | 218+58.59 | R/L | | | 231 | 44 | | | 6 | | | | 206 | 129 | | 44 | | | | |
| SW15 | 19 | 218+30.69 | 218+43.69 | RT | | | 84 | 13 | | | 3 | | | | 25 | 56 | | 13 | | | | |
| SW16 | 19 | 217+42.93 | 217+55.57 | RT | | | 85 | 13 | | | 3 | | | | 19 | 56 | | 13 | | | | |
| SW17 | 21 | 267+47.46 | 267+72.11 | LT | | | 241 | 39 | | | 9 | | | | 66 | 178 | | 39 | | | | |
| SW18 | 21 | 268+41.58 | 268+71.86 | LT | | | 359 | 55 | | | 12 | | | | 131 | 259 | | 55 | | | | |
| SW19 SW20 | 21 | 268+45.79 267+29.18 | 268+68.20 267+69.54 | RT RT | | | 207 306 | 31 55 | | | 7 12 | | | | 66 130 | 149 273 | | 31 55 | | | | |
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