CITY OF ANN ARBOR
ENGINEERING

EARHART ROAD IMPROVEMENTS
(GEDDES - US23)

R.F.P. 23-25, FILE No. 2021023
Know what's below. Call before you dig.

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING
CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
P.O. BOX 8647
ANN ARBOR, MI 48107-8647
734-794-6410
www.a2gov.org

EARHART ROAD IMPROVEMENTS (GEDDES - US23)
STANDARD NOTES

PERMITS REQUIRED TO BE OBTAINED BY THE CITY OF ANN ARBOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

PERMIT ISSUING AUTHORITY

PERMITS REQUIRED TO BE OBTAINED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF CONSTRUCTION.

CONTACT INFORMATION

PUBLIC UTILITIES
OWNER
CONTACT
PRIVATE UTILITIES
OWNER
CONTACT

EARHART ROAD BENCHMARKS

<table>
<thead>
<tr>
<th>BM #</th>
<th>ELEV</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>AA1023</td>
<td>814.118</td>
<td>CITY OF ANN ARBOR VERTICAL CONTROL STATION. BRASS DISC IN CENTER OF ROUNDABOUT</td>
</tr>
<tr>
<td>1</td>
<td>814.540</td>
<td>EAST SIDE OF CONC. LIGHT BASE 55'+/- NORTH OF CL OF ENTRANCE TO CONCORDIA UNIV. MAINTENANCE BARN</td>
</tr>
<tr>
<td>AA2032</td>
<td>843.380</td>
<td>CITY OF ANN ARBOR BENCHMARK</td>
</tr>
<tr>
<td>2</td>
<td>883.330</td>
<td>SOUTH SIDE OF CONC. CROSS BASE JUST SOUTH OF ST PAUL LUTHERAN SCHOOL SIGN, NW CORNER ENTRANCE OF SCHOOL DRIVEWAY</td>
</tr>
<tr>
<td>3</td>
<td>872.450</td>
<td>SOUTH FLANGE BOLT ON HYDRANT SE CORNER OF EARHART &amp; PINE BRAE. 20'+/- FROM CL OF PINE BRAE, 36'+/- FROM CL OF EARHART. NEAR HOUSE #491</td>
</tr>
<tr>
<td>4</td>
<td>855.970</td>
<td>NE BOLT ON CONC. BASE OF LIGHT POLE ON THE NW CORNER OF EARHART &amp; WALDENWOOD, 75'+/- FROM CL OF EARHART.</td>
</tr>
<tr>
<td>5</td>
<td>872.119</td>
<td>CHISEL &quot;X&quot; ON NE BOLT OF LAMP POST ON SOUTHSIDE OF SOUTH ENTRANCE TO GREENHILLS DRIVE AND 76'± EAST OF CENTERLINE OF EARHART ROAD.</td>
</tr>
<tr>
<td>6</td>
<td>888.672</td>
<td>TOP OF SE BOLT ON FLANGE OF HYDRANT, EAST SIDE OF EARHART ROAD, 4' BACK OF CURB AND 182'± NORTH OF ENTRANCE TO EARHART VILLAGE UNITS 810-832 OFF EARHART ROAD.</td>
</tr>
<tr>
<td>7</td>
<td>894.025</td>
<td>TOP OF SW BOLT ON FLANGE OF HYDRANT, NW CORNER OF EARHART ROAD AND WALDENWOOD DRIVE. 75% BACK OF CURB</td>
</tr>
<tr>
<td>8</td>
<td>893.891</td>
<td>BOAT SPIKE IN NE FACE OF UTILITY POLE AT SOUTHWEST CORNER OF GLAZIER WAY AND EARHART ROAD.</td>
</tr>
<tr>
<td>9</td>
<td>892.352</td>
<td>RAILROAD SPIKE IN WEST FACE OF UTILITY POLE, EAST SIDE OF EARHART ROAD. 10' FROM BACK OF CURB AND 234'± NORTH OF CENTERLINE OF GLACIER HILLS DRIVE SOUTH ENTRANCE</td>
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<tr>
<td>10</td>
<td>895.813</td>
<td>RAILROAD SPIKE WEST FACE OF UTILITY POLE AT THE SE CORNER OF EARHART ROAD AND MAIN ENTRANCE OF GLACIER HILLS #1200</td>
</tr>
<tr>
<td>11</td>
<td>888.399</td>
<td>RAILROAD SPIKE WEST FACE OF UTILITY POLE ON EAST SIDE OF EARHART ROAD 8' FROM BACK OF CURB AND 148'± SOUTH OF CENTERLINE OF KIPLING DR.</td>
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<tr>
<td>12</td>
<td>893.903</td>
<td>RAILROAD SPIKE WEST FACE OF UTILITY POLE ON THE EAST SIDE OF EARHART ROAD. 35'± FROM BACK OF CURB AND 95'± NORTH FROM CENTERLINE OF GLACIER HILLS DR. NORTH ENTRANCE</td>
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<tr>
<td>13</td>
<td>892.060</td>
<td>CITY BENCHMARK #2009 DISC IN ROUND MONUMENT, 12% S OF BACK OF CURB AND 13.4' E OF BACK OF CURB IN THE SOUTH ISLAND AT THE INTERSECTION OF GLACIER WAY &amp; EARHART ROAD.</td>
</tr>
<tr>
<td>14</td>
<td>886.672</td>
<td>TOP OF EAST FLANGE OF VERTICAL. EAST END OF EARHART ROAD 2 BACK OF CURB AND 36'± NORTH OF ENTRANCE TO EARHART VILLAGE UNTIL 810-832 OFF EARHART ROAD.</td>
</tr>
<tr>
<td>15</td>
<td>894.625</td>
<td>TOP OF EAST FLANGE OF VERTICAL. WEST CORNER OF EARHART ROAD AND WALDENWOOD DRIVE.</td>
</tr>
<tr>
<td>16</td>
<td>880.860</td>
<td>TOP OF WEST FLANGE OF VERTICAL EAST CORNER OF GLACIER WAY AND EARHART ROAD</td>
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<tr>
<td>17</td>
<td>892.385</td>
<td>WEST FLANGE BOLT ON FLANGE OF HYDRANT, EAST SIDE OF EARHART ROAD</td>
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<tr>
<td>18</td>
<td>885.012</td>
<td>WEST FLANGE BOLT ON FLANGE OF HYDRANT, EAST SIDE OF EARHART ROAD</td>
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<tr>
<td>19</td>
<td>888.286</td>
<td>EAST FLANGE BOLT ON FLANGE OF HYDRANT, EAST SIDE OF EARHART ROAD</td>
</tr>
<tr>
<td>20</td>
<td>889.253</td>
<td>EAST FLANGE BOLT ON FLANGE OF HYDRANT, EAST SIDE OF EARHART ROAD</td>
</tr>
<tr>
<td>21</td>
<td>894.625</td>
<td>TOP OF EAST FLANGE OF VERTICAL. WEST CORNER OF EARHART ROAD AND WALDENWOOD DRIVE.</td>
</tr>
</tbody>
</table>

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1. The contractor shall only install and maintain the Silt Fence in accordance with the plans and specifications of the City of Ann Arbor. All installation work shall be performed in accordance with the approved plans and specifications.
2. The contractor shall perform all work in accordance with the approved plans and specifications.
3. The contractor shall coordinate all work with the City of Ann Arbor.
4. The contractor shall be responsible for all work performed on the site.
5. The contractor shall perform all work in accordance with the approved plans and specifications.
Know what's below. Call before you dig.
<table>
<thead>
<tr>
<th>HMA APPLICATION ESTIMATE</th>
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<tbody>
<tr>
<td>SUPERFICIAL TYPE</td>
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<td>4EL</td>
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<thead>
<tr>
<th>LOCATION NOTES</th>
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<tbody>
<tr>
<td>TOP</td>
</tr>
<tr>
<td>BASE &amp; LEVELING</td>
</tr>
<tr>
<td>HMA APPROACH</td>
</tr>
<tr>
<td>HMA PATCHING</td>
</tr>
</tbody>
</table>

INCLUDE IN COST OF HMA ITEM

Know what's below. Call before you dig.
MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING FLAGS OR OTHER ENGINEER-APPROVED DEVICES AT NO ADDITIONAL COST TO THE PROJECT. ENOUGH TO CREATE A HAZARD, THE TRAFFIC CONTROL DEVICES SHALL BE DELINEATED WITH POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT SEGMENTS OF ROUGH, SOFT, OR UNEVEN GROUND. PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES. WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, THE CONTRACTOR SHALL PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE OTHER SIDE OF STREET. WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME SIDE APR, PROVIDE A DETOUR ON THE OTHER SIDE OF THE STREET. PROVIDE THE APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROJECT PLANS.
2. ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS AS SHOWN ON THE OTHER SIDE OF STREET.
3. OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS (FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK)

WHERE IT IS NOT FEASIBLE TO PROVIDE A SAME SIDE APR, PROVIDE A DETOUR ON THE OTHER SIDE OF THE STREET. PROVIDE THE APR IN THE FOLLOWING ORDER OF PREFERENCE:

1. PROJECT PLANS.
2. ROADWAY, PROVIDE AN APR DETOUR WITH TRAILBLAZING SIGNS AS SHOWN ON THE OTHER SIDE OF STREET.
3. OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS (FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK)
SPECIFIC NOTES

1. Curb ramps shall be 48" min. width, with a firm, stable and slip resistant surface. Perforated edge (spikes) shall be 2.5" min. height above the ramp shall be placed manually. Curb ramp or landing platforms may have a vertical drop of 3" or more for a sidewalk opening. Spikes, spits, or a protective edging should be considered in manual curb ramps or landing platforms when a vertical drop of 0.5" or more.

2. Protective edging shall be 2.5" min. height above the ramp surface. Protective edging should be considered when curb ramps or landing platforms have a vertical drop of 0.5" or more.

3. Detectable edging shall be used when the path changes direction. This includes a turn onto the ramp from the path, detectable edging should be used when a curb ramp is placed after a sidewalk opening. Protective edging should be used at the end of the curb ramp landing where the walkway changes direction.

4. Curb ramps and landing areas shall have a 2% max. cross slope.

5. Clear space of 48" x 48" min. shall be provided above and below the curb ramp.

6. The curb ramp walkway edge shall be marked with a contrasting color, 2" to 4" wide marking. The marking is optional where color contrasting edging is used.

7. Water flow in the gutter system shall not be impeded.

8. Lateral joint gaps between surfaces shall be less than 0.25" width.

9. Changes between surface heights shall not exceed 0.25". Lateral edges should be vertical, up to 0.5" width, and beveled up to 1.0" between 0.5" and 1.0" height.

10. Detectable edging shall be 6" min. height.

11. Protective edging shall be 2.5" min. height above the ramp surface.

12. Detectable edging shall be 6" min. height.

13. Cross slope shall be 2% max.

14. Edge treatment shall be provided.

15. Protective edge shall be provided.

16. Clear space shall be provided.

PUBLIC SERVICES
ENGINEERING
CITY OF ANN ARBOR
P.O. BOX 8647
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EARHART ROAD IMPROVEMENTS (GEDDES - US23)

TPAR RAMPS
TEMPORARY PEDESTRIAN ACCESS

- 4' MINIMUM
- 5' DESIRABLE

TEMPORARY WALKWAY SURFACE
- 2% MAX. CROSS SLOPE
- 2" MAX.

PEDESTRIAN CHANNELIZER
- 0.5" MAXIMUM

LEADING EDGE
- 2" MAX.

HANDRAILING EDGE
- 2" MAX.

DETECTABLE EDGE
- 32" MIN.

DETECTABLE EDGES SHALL BE CONTINUOUS AND A MINIMUM OF 6 INCHES IN HEIGHT ABOVE THE WALKWAY SURFACE AND HAVE COLOR MARKINGS CONTRASTING WITH THE WALKWAY SURFACE. DEVICES SHALL NOT Block water drainage from the walkway. A 2" gap height or drainage from the walkway surface at its maximum of 2" is allowed for drainage purposes. The device shall be made of a material that is resistant to physically damaging elements such as weather, traffic, and a total width greater than 1.5 inches. Devices shall be free from sharp or rough edges, and fasteners (bolts) shall be rounded to prevent harm to hands, arms, or clothing of pedestrians. Devices used to channelize pedestrian flow should be separated such that gaps do not allow pedestrians to stray from the intended channelized path. Devices shall be free of sharp edges, and fasteners (bolts) shall be rounded to prevent harm to hands, arms, or clothing of pedestrians. A WALKWAY SURFACE SHALL BE FIRM, STABLE, AND SLIP RESISTANT. COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED.

NARROW TEMPORARY PEDESTRIAN ACCESS ROUTE PASSING DETAIL

PEDESTRIAN CHANNELIZER USING A BARRIER (MINIMUM REQUIREMENTS)

PEDESTRIAN CHANNELIZER (MINIMUM REQUIREMENTS)

TYPICAL AUDIBLE MESSAGE DEVICE LOCATION WHEN USED

GENERAL NOTES
-浦尾袋は、既に事前に検査されたものであれば、検査資格証をコピーを添付。
-浦尾袋は、既に事前に検査されたものであれば、検査資格証をコピーを添付。

SPECIFIC NOTES
-浦尾袋は、既に事前に検査されたものであれば、検査資格証をコピーを添付。
-浦尾袋は、既に事前に検査されたものであれば、検査資格証をコピーを添付。

SIDEWALK BARRICADE

200' MAX. SPACING FROM LAST PASSING SPACE

32" MIN.

2" MAX.

7" MIN.

207 MAX. SPACING BREAKFAST PASSING SPACE

4" MIN.

3" MIN.
Know what's below. Call before you dig.
Know what's below. Call before you dig.
Earhart Rd (120' R.O.W.)
Waldenwood Dr
Pine Brae Dr (60' R.O.W.)
Ridgmar Sq
Earhart Rd (120' R.O.W.)
Greenhills Dr (60' R.O.W.)

Know what's below. Call before you dig.

City of Ann Arbor - Public Services - Engineering
City of Ann Arbor
Public Services
301 East Huron Street
P.O. Box 8647
Ann Arbor, MI 48107-8647
734-794-6410
www.a2gov.org

2021023
17 OF 74
1. Final limits of pavement removal for utility installation will be as directed by Engineer.
2. Under traffic control and protective barriers within work zone to relieve open trenches as directed by Engineer.
3. Maintain pedestrian access during construction.
4. Cover existing signs as needed or as directed by Engineer.
5. Reduce conflicting pedestrian materials as directed by the Engineer.
6. Contractor shall post portable flash-occlusion message sighted to traffic in the areas of construction, as determined by Engineer, message to be provided by the Contractor.
EARHART RD (66' R.O.W.)

1" = 40'

Call before you dig.

Know what's below.

PINE BRAE DR (60' R.O.W.)

CITY OF ANN ARBOR - PUBLIC SERVICES - ENGINEERING

CITY OF ANN ARBOR
PUBLIC SERVICES
301 EAST HURON STREET
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2021-02-23

EARHART ROAD IMPROVEMENTS (GEDDES - US23)

MAINTENANCE OF TRAFFIC - PH II
STA. 4+00 - STA. 22+00
Know what's below.
Call before you dig.

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TREE REMOVAL TABLE

<table>
<thead>
<tr>
<th>Tree No.</th>
<th>Type</th>
<th>Species</th>
<th>Database</th>
<th>Rating</th>
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<tbody>
<tr>
<td>1</td>
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<td></td>
<td>50</td>
<td>10</td>
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<tr>
<td>2</td>
<td>Maple</td>
<td></td>
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<tr>
<td>3</td>
<td>Oak</td>
<td></td>
<td>90</td>
<td>15</td>
</tr>
</tbody>
</table>

CAUTION: HAZARDOUS OR FLAMMABLE MATERIAL

Know what's below. Call before you dig.
EARTHART RD (135' R.O.W.)

Know what's below. Call before you dig.
EARHART RD CL- SOUTH
855
860
865
870
875
880
885
29+50
30+00
31+00

1" = 20'

Know what's below.
Call before you dig.

CONSTRUCTION KEY

CP
CG
APP
SR6
SC4
SC6
DWT
HMA
DSC-B
DSC-K
DSC-Q
ABO
DSA
MBA
DOM
DC-6

CAUTION
HAZARDOUS
OR FLAMMABLE
MATERIAL

HMA, 4EL

EARHART ROAD IMPROVEMENTS (GEDDES - US23)
EARNHARDT RD (135' R.O.W.)

CONSTRUCTION KEY

<table>
<thead>
<tr>
<th>KEY</th>
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<tbody>
<tr>
<td>CP</td>
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<tr>
<td>DC-6</td>
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</tr>
</tbody>
</table>

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EARHART RD (66’ R.O.W.)

PINE BRAE DR (60’ R.O.W.)

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EARHART ROAD IMPROVEMENTS (GEDDES - US23)
PAVEMENT MARKINGS
STA. 11+00 - STA. 20+00

2021023-56
Know what's below. Call before you dig.
EARHART RD (120' R.O.W.)

GREENHILLS DR (60' R.O.W.)

Know what's below. Call before you dig.
Know what's below. Call before you dig.
EARHART RD (135' R.O.W.)

GLACIER HILLS CIR

EARHART RD (135' R.O.W.)

GLACIER HILLS DR

1" = 20'

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ANN ARBOR, MI 48107-8647

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EARHART ROAD IMPROVEMENTS (GEDDES - US23)

PAVEMENT MARKINGS

STA. 51+50 - STA. 60+50
PLN:

1" = 10'

PROFILE: 1" = 10'

Know what's below. Call before you dig.
PLAN:
1" = 10'
PROFILE: 1" = 10'

Know what's below. Call before you dig.
PLAN:
1" = 10'

PROFILE: 1" = 10'

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2021023 - EARHARTH ROAD IMPROVEMENTS (GEDDES - US23)
CROSS SECTIONS
SOUTHBOUND 40+00 TO 42+75