Know what’s below. Call before you dig.

Call R 11-01-19

90% DESIGN
08-30-19

50% DESIGN
12-10-19

BID DOCUMENTS

CITY OF ANN ARBOR
TRAFFIC SIGNAL DETAILS 3
Know what's below before you dig. Call 811.
Know what’s below. Call before you dig.

C.12.05

ASHLEY STREET - CITY OF ANN ARBOR

TRAFFIC SIGNAL REMOVAL SHEET
ASHLEY ST @ MILLER ST

LIST OF MATERIAL

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Material Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EX. NORTH-WEST MAST ARM ELEVATION
FACING EAST - NOT TO SCALE

EX. NORTH-WEST MAST ARM ELEVATION
FACING SOUTH - NOT TO SCALE

EX. SOUTH-EAST MAST ARM ELEVATION
FACING WEST - NOT TO SCALE

EX. SOUTH-EAST MAST ARM ELEVATION
FACING NORTH - NOT TO SCALE

1" = 20'

ASHLEY STREET - CITY OF ANN ARBOR

TRAFFIC SIGNAL REMOVAL SHEET
ASHLEY ST @ MILLER ST

LIST OF MATERIAL

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Material Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

EX. NORTH-WEST MAST ARM ELEVATION
FACING EAST - NOT TO SCALE

EX. NORTH-WEST MAST ARM ELEVATION
FACING SOUTH - NOT TO SCALE

EX. SOUTH-EAST MAST ARM ELEVATION
FACING WEST - NOT TO SCALE

EX. SOUTH-EAST MAST ARM ELEVATION
FACING NORTH - NOT TO SCALE

1" = 20'
Know what's below. Call before you dig.

Call 811-01-19

90% DESIGN 08-30-19
50% DESIGN 12-10-19
BID DOCUMENTS

TRAFFIC SIGNAL CONSTRUCTION SHEET
ASHLEY ST @ MILLER ST

ASHLEY STREET - CITY OF ANN ARBOR

BENCH MARK
SURVEY
REV. NO.

LIST OF MATERIAL

DATE: 08-30-19

TRAFFIC SIGNAL CONSTRUCTION SHEET
ASHLEY ST @ MILLER ST
NOTE: REMOVAL OF TRAFFIC SIGNAL EQUIPMENT SHALL BE 

COORDINATED WITH IMPLEMENTATION OF THE TRANSIT 
CONVERSION. TIME OF REMOVAL SHALL BE AS DIRECTED 

BY THE ENGINEER.

NOTE: SEE PAVEMENT MARKING PLAN SHEETS FOR 
SIGNING AND PAVEMENT MARKING REMOVALS. 
NOTE: SEE PAVEMENT MARKING PLAN SHEETS FOR 
SERVICE DISCONNECTION. SEE CONSTRUCTION SHEET 
FOR ESTIMATED COST TO CONTRACTOR.

LIST OF MATERIAL

<table>
<thead>
<tr>
<th>NO.</th>
<th>DESCRIPTION</th>
<th>QUANTITIES</th>
<th>ITEM CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Michigan Department of Transportation

DESIGNED BY: WADETRIM

www.wadetrim.com
810.235.2555
Flint, MI 48502
Suite 201
555 S. Saginaw Street,
NOTE: TRAFFIC SIGNAL CONTROLLER SHALL BE SCOOT COMPATIBLE.
NOTE: INSTALLATION OF TRAFFIC SIGNAL EQUIPMENT AND QUANTITIES.
NOTE: SEE PAVEMENT MARKING PLAN SHEETS FOR ESTIMATED COST TO CONTRACTOR: $XXXX.

REQUEST.

THE TWO-WAY CONVERSION. TIME OF INSTALLATION SHALL BE COORDINATED WITH IMPLEMENTATION OF THE TRANSITION CONVERSION. TIME OF INSTALLATION SHALL BE AS DIRECTED BY THE ENGINEER.

CONTACT: TONY IGNASIAK OF DTE ELECTRICAL CONTACT: CHUCK FOJTIK OF CITY OF ANN ARBOR, FOR ELECTRICAL SERVICE RECONNECTION.

NOTE: UTILIZE EXISTING CONDUIT & HANDHOLES WHERE POSSIBLE OTHERWISE INSTALL NEW AS DIRECTED BY THE ENGINEER.

SIGNALS

PERMIT

PRELIMINARY

SIGNAL WILL BE DESIGNED TO MDOT STANDARDS AND MEET THE REQUIREMENTS OF THE SIGNAL LAYOUT REQUEST.

LIST OF MATERIAL

<table>
<thead>
<tr>
<th>NO.</th>
<th>ITEM</th>
<th>QUANTITIES</th>
<th>UNIT SIZE</th>
</tr>
</thead>
</table>

TRAFFIC SIGNAL CONSTRUCTION SHEET

CITY OF ANN ARBOR, Washtenaw County

5:00 PM 26-10-2020
CABLES TO BE USED
UNLESS SPECIFIED OTHERWISE

1. 4W-3C TRAFFIC SIGNAL CABLES ARE #16/12-PJ
2. PEDESTRIAN SIGNAL CABLES ARE #16/12-PJ
3. 4-WAY 24"X30" LED CASE SIGNAL CABLES ARE 7/C#16 PJ
4. PEDESTRIAN SIGNAL W/1W-3C TRAFFIC CABLES ARE 12/C#16 PJ
5. REFLECTING UNIT CABLES ARE 12/C#16 OR APPROVED EQUAL
6. CELLULAR MODEM ANTENNA CABLES ARE 12/C#16 OR APPROVED EQUAL

---

POLE
STEEL

CONTROLLER
MOUNT
BASE

HH
36"

PEDESTAL

1-1" DB CONDUIT
3-3" DB CONDUITS
1-1" DB CONDUIT

CONC HH
POLYMER

1-1" DB CONDUIT

PRELIMINARY
Know what's below. Call before you dig.

Traffic Signal Removal Sheet
Ashley St @ Washington St

List of Material

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>811-Contact</td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>Wade Trim</td>
<td></td>
</tr>
</tbody>
</table>

ASHLEY STREET - CITY OF ANNARBOR

TRAFFIC SIGNAL REMOVAL SHEET
ASHLEY ST @ WASHINGTON ST

C.12.14

Scale: 1" = 20'

Date: 11-01-19

90% Design

Date: 08-30-19

50% Design

Date: 12-10-19

Bid Documents
Know what's below. Call before you dig.
Know what's below. Call before you dig.

ASHLEY STREET - CITY OF ANN ARBOR

- 50% DESIGN: 08-30-19
- 90% DESIGN: 11-01-19
- BID DOCUMENTS: 12-10-19

TRAFFIC SIGNAL CONSTRUCTION SHEET
ASHLEY ST @ LIBERTY ST

LIST OF MATERIAL:

- [List of materials for construction]
Know what's below. Call before you dig.

ASHLEY STREET - CITY OF ANN ARBOR

NE QUAD

SCALE 1"=5'

ASHLEY ST @ LIBERTY ST

QUADRANT CONSTRUCTION DETAIL SHEET

DRAWING NO. C.12.18

SURVEY BOOK MARK REV. NO.

DR.BY DATE CH.BY

R 11-01-19 90% DESIGN 08-30-19 50% DESIGN 12-10-19 BID DOCUMENTS

C12.18
Groundwater During Drilling: NONE
Notes: Groundwater After Drilling: NONE
End of Boring: 10'

End of Borehole = 10.5'. Borehole backfilled upon completion.
### Soil Boring Log Sheet 2

**Project Number:** 1198070026  
**Project Name:** City of Ann Arbor  
**Mileage:** 1198070026  
**Location:** Ann Arbor, MI  
**Date Started:** 8/7/19  
**Completed:** 8/7/19  
**Time Started:**  
**Completed:**  
**Logged By:** Al Guzzial  
**Checked By:** K. Maruska  
**Driller Name:** Al Guzzial  
**Drill Rig Model:** HSA  
**Client Name:** City of Ann Arbor  
**Boring No.:** ASH-11  
**Surface Elevation:** (ft)  
**Latitude:**  
**Longitude:**  
**Auger Size:** 3.20"  
**Weather:**  
**Basal Depth:**  
**Sample:**  
**Description:**  

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Description of Strata</th>
<th>Sample</th>
<th>Secondary Coring</th>
<th>Lösen (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>End of Borehole = 5 ft. Borehole backfilled upon completion. Refusal hit at 5 ft. possibly a v-notch.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>6 inches of ASPHALT pavement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>12 inches of SAND and GRAVEL base</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>SAND (SP) - brown, fine to medium, with silt, trace gravel, loose, moist</td>
<td>SS-1</td>
<td>3-8-4 (7)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>CLAYEY SAND (SC) - brown, fine to coarse, with gravel, loose, moist</td>
<td>SS-2</td>
<td>3-8-3 (6)</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0.5 inches of ASPHALT, 7 inches of CONCRETE pavement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>SAND (SP) - grey, fine to medium, with gravel, dry. Pushed a stone</td>
<td>SS-1</td>
<td>3-8-4 (9)</td>
<td>500 - (50+)</td>
</tr>
<tr>
<td>7</td>
<td>SAND (SP) - brown, fine to coarse, some clay and gravel, loose, moist</td>
<td>SS-2</td>
<td>3-8-3 (5)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SILTY CLAY (CL) - brown, trace sand and gravel, very stiff, moist</td>
<td>SS-3</td>
<td>3-11-16 (27)</td>
<td>4</td>
</tr>
<tr>
<td>9</td>
<td>0.5 inches of ASPHALT, 7 inches of CONCRETE pavement</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Groundwater During Drilling:** NONE  
**Notes:**  
**End of Boring:** 10 ft  

---

**SOIL BORING LOG SHEET 2**  
**ASHLEY STREET - CITY OF ANN ARBOR**  
**C.13.02**
<table>
<thead>
<tr>
<th>Depth (Ft)</th>
<th>Description of Strata</th>
<th>Legend</th>
<th>Sample</th>
<th>Recovery %</th>
<th>RQD</th>
<th>IC</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>7 inches of ASPHALT pavement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SAND (SP) - brown, fine to coarse, with gravel, very loose, wet</td>
<td>SS-1</td>
<td>2-0-2 (k)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>SAND (SP) - brown, fine to coarse, loose clay and gravel, very loose, moist</td>
<td>SS-2</td>
<td>2-1-2 (k)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Groundwater During Drilling: NONE
Notes:
Groundwater After Drilling: NONE
End of Boring: 5'
Groundwater During Drilling: None
Notes:
Groundwater After Drilling: None
End of Boring: 9'

End of Boring: 5'
backfilled upon completion.
GENERAL NOTES

A. REFER TO THE CITY OF ANN ARBOR’S DIVISION VI “STREETLIGHT INSTALLATION AND CONSTRUCTION” MANUAL FOR SPECIFICATIONS.

B. THE DRAWINGS REPRESENT ELECTRICAL DESIGN INTENT. THEY ARE SCHEMATIC AND DIAGRAMMATIC AND DO NOT INDICATE CONSTRUCTION DETAILS OR ROUTING UNLESS OTHERWISE NOTED. THE SPECIFICATIONS ESTABLISH MINIMUM PERFORMANCE AND PRODUCT INSTALLATION REQUIREMENTS. PROVIDE PRODUCTS CONSISTENT WITH THE DESIGN INTENT AND NECESSARY FOR COMPLETE OPERATING ELECTRICAL SYSTEMS.

C. FINAL SELECTION AND INSTALLATION OF EQUIPMENT SHALL BE EVALUATED BY THE CONTRACTOR AND BASED ON SITE CONDITIONS AND CODE REQUIREMENTS. THE CONTRACTOR SHALL ENSURE SUFFICIENT ELECTRICAL WORKING SPACE AND ACCESS TO ELECTRICAL ENCLOSURE FOR OPERATION AND MAINTENANCE OF THE EQUIPMENT.

D. CLOSELY COORDINATE THE WORK WITH ALL TRADES AND SITE CONDITIONS. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS AND STARTING CONSTRUCTION. NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND CONTRACT DOCUMENTS PRIOR TO BID AND CONSTRUCTION.

E. PROVIDE ANY AND ALL WORK REQUIRED FOR A COMPLETE INSTALLATION, INCLUDING, BUT NOT LIMITED TO INTERCONNECTING WIRING, CABLES, TERMINATIONS, CONDUITS, RACEWAYS, JUNCTION BOXES, COVERS, PLATES, MOUNTING SUPPORTS, HARDWARE, FASTENERS, PULL STRINGS, ETC.

F. CONTACT MISS DIG AND ALL UTILITY COMPANIES AT LEAST 72 HOURS IN ADVANCE OF ANY CONSTRUCTION. DO NOT BEGIN ANY UNDERGROUND WORK PRIOR TO SURVEYING AND MARKING OF EXISTING UTILITIES.

G. THE DRAWINGS SHOULD INDICATE GENERAL DESCRIPTION OF LIGHTING FIXTURES AND MANUFACTURER. COMPLY WITH MANUFACTURER RECOMMENDATIONS AND INSTRUCTIONS FOR INSTALLATION.

H. VERIFY EXACT LOCATION OF LIGHTING FIXTURES WITH OTHER TRADES PRIOR TO INSTALLATION. VERIFY THE CORRECT CONFIGURATION AND PROVIDE FIXTURES WITH NECESSARY ACCESSORIES AND MOUNTING HARDWARE.

I. SYMBOLS AND ABBREVIATIONS SHOWN ARE GENERIC. NOT ALL SYMBOLS OR ABBREVIATIONS ARE USED.

J. SIGNAL CONDUITS SHALL BE CONNECTED INTO EXISTING SIGNAL HANDHOLDS.

K. CONNECTIONS FROM HANDHOLE TO LIGHT FIXTURE SHALL BE MINIMUM AWG #10.

SYMBOLS

ABBREVIATIONS

SIGNIFICANT NOTES

ELECTRICAL PLAN 1
LIGHTING FIXTURE SCHEDULE

<table>
<thead>
<tr>
<th>No.</th>
<th>TYPE</th>
<th>DESCRIPTION</th>
<th>MANUFACTURER</th>
<th>MODEL</th>
<th>WATTAGE</th>
<th>VOLTAGE</th>
<th>LAMP</th>
<th>MOUNTING</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12'-0&quot; LED GLOBE POLE WITH TYPE V DISTRIBUTION</td>
<td>LIGHTING POLE AND FIXTURE TO BE PURCHASED BY ANN ARBOR DDA.</td>
<td>LUMECON</td>
<td>LBOF-2</td>
<td>84W</td>
<td>120-277V</td>
<td>UNV</td>
<td>LED; 6000LM; 3000K CCT; 80 CRI</td>
<td></td>
</tr>
</tbody>
</table>

POWER CIRCUIT SCHEDULE

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>ID Tags</th>
<th>120V Power</th>
<th>Conduit Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LIGHT FIXTURES - ASHLEY ST.</td>
<td>(2) 2#10, 1#10G</td>
<td>(2) 2#8, 1#10G</td>
<td></td>
</tr>
</tbody>
</table>

LIGHTING CIRCUIT SCHEDULE

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>ID Tags</th>
<th>240V Power</th>
<th>Conduit Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LIGHTING CIRCUIT SCHEDULE</td>
<td>(2) 2#10, 1#10G</td>
<td>(2) 2#8, 1#10G</td>
<td></td>
</tr>
</tbody>
</table>

ELECTRICAL DETAILS

ASHLEY ST STREETSCAPE - CITY OF ANN ARBOR

NOTES:
- Know what's below. Call before you dig.
- This drawing is for planning purposes only. Final construction details should be referenced in the completed plans.

DRAWING NO.: E.5.01
SCALE: ASHLEY ST STREETSCAPE - CITY OF ANN ARBOR

REV. NO.: 50% DESIGN
DATE: 08-30-2019
CH. BY: DR. BY

90% DESIGN
DATE: 11-01-2019
CH. BY: DR. BY

100% DESIGN
DATE: 11-27-2019
CH. BY: DR. BY
NOTES:
1. THIS DETAIL IS RELATED TO TYPE L1 STREET LIGHT FOUNDATION. FOR TYPE L2 STREET LIGHT FOUNDATION, USE A 16" DIA. SONOTUBE FOR THE CONCRETE FOOTING. MAINTAIN ALL OTHER DETAILS.
2. HOLE TO BE AUGERED. MINIMIZE DISTURBANCE OF IN-SITU SOILS DURING AUGERING.
3. CONTRACTOR TO PROVIDE PREFABRICATED ANCHOR BOLT BUILD-UP.
4. THE CITY WILL INSPECT THE AUGERED HOLE AND THE ANCHOR BOLT BUILD-UP AND PROVIDE WRITTEN APPROVAL PRIOR TO THE PLACEMENT OF CONCRETE.
5. NO WATER IS TO BE IN HOLE AT TIME OF CONCRETE PLACEMENT.
6. CONCRETE SHALL BE VIBRATED DURING PLACEMENT.
7. CONDUIT TO EXTEND 1'-2" ABOVE BASE. CABLES TO EXTEND 6" OUTSIDE OF HANDHOLE.
8. SHIMS TO BE 1/2" MIN., PER D.E. SPEC.
9. GROUND CABLE SHALL BE #6 SOFT BARE COPPER WIRE WELDED TO GROUND ROD WITH 24" SLACK ABOVE FOUNDATION TOP; THE NEUTRAL AT THE POLE IS TO BE CONNECTED TO THIS GROUND CABLE.

* UNLESS OTHERWISE NOTED ON THE PLANS OR CONTRACT DOCUMENTS.
PLANTING LIST

CANOPY TREES

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Botanical Name</th>
<th>Common Name</th>
<th>Size</th>
<th>Form</th>
<th>Notes/Spacing</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACXF</td>
<td>Acer x freemani 'Autumn Blaze'</td>
<td>Autumn Blaze maple</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td>2</td>
</tr>
<tr>
<td>ACMi</td>
<td>Acer misel 'State Street'</td>
<td>State Street maple</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td></td>
</tr>
<tr>
<td>BENI</td>
<td>Betula nigra 'Heritage'</td>
<td>Heritage river birch</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td></td>
</tr>
<tr>
<td>GINK</td>
<td>Ginkgo biloba 'Autumn Gold'</td>
<td>Autumn Gold ginkgo</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td></td>
</tr>
<tr>
<td>GLTR</td>
<td>Geleitistra ‘Shademaker’</td>
<td>Shademaker honeylocust</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td></td>
</tr>
<tr>
<td>GYDI</td>
<td>Gymnocladus dioicus</td>
<td>Kentucky coffee tree</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td></td>
</tr>
<tr>
<td>NYSS</td>
<td>Nyssa sylvatica</td>
<td>Black tupelo/black gum</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td></td>
</tr>
<tr>
<td>QURU</td>
<td>Quercus rubra</td>
<td>Red oak</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td></td>
</tr>
<tr>
<td>TAXO</td>
<td>Taxodium distichum</td>
<td>Bald cypress</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td></td>
</tr>
<tr>
<td>ULMV</td>
<td>Ulmus x 'New Horizon'</td>
<td>New Horizon elm</td>
<td>2.5&quot;</td>
<td>B&amp;B</td>
<td>Full, well-branched, single central leader</td>
<td></td>
</tr>
</tbody>
</table>

NOTES:
- Never cut central leaders. Prune only to remove dead and damaged branches.
- Remove burlap from top 1/3 of root ball.
- 2" deep composted bark mulch. Do not cover root collar.
- Mound planting backfill to form saucer around plant pit.
- Plant saucer outside of guy stakes.
- 12" min. for up to 3" cal. 18" min. for 3" cal. & larger.
- Mulch saucer dimension - see schedule.
- 2" deep composted bark mulch.
- Container plants: Remove pots and separate pot bound roots as specified.
- Spacing as shown.

100% DESIGN 11-27-2019
90% DESIGN 11-01-2019
50% DESIGN 08-30-2019