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NOTES

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

PERMIT ISSUING AUTHORITY

LANE CLOSURE PERMIT
CITY OF ANN ARBOR ENGINEERING

"NO PARKING" SIGNS PERMIT
CITY OF ANN ARBOR ENGINEERING

GRADING/SOIL EROSION & SEDIMENTATION CONTROL PERMIT
CITY OF ANN ARBOR CUSTOMER SERVICE

RIGHT-OF-WAY PERMIT
CITY OF ANN ARBOR CUSTOMER SERVICE

* NO COST TO CONTRACTOR

CONSTRUCTION NOTES:

LONGSHORE / INDIANOLA / OTTAWA / ARGO / AMHERST BENCHMARKS

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CONTACT INFORMATION

PUBLIC UTILITIES
OWNER CONTACT

PRIVATE UTILITIES
OWNER CONTACT

CONSTRUCTION NOTES:

LONGSHORE / INDIANOLA / OTTAWA / ARGO / AMHERST BENCHMARKS

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Know what's below.
Call before you dig.
OTTAWA ROAD
TYPICAL SECTION

AMHERST AVENUE (CHANDLER AVENUE TO PONTIAC TRAIL)
TYPICAL SECTION

TYPICAL PROPOSED ROAD SECTIONS

AMHERST AVENUE (CHANDLER AVENUE TO PONTIAC TRAIL)
TYPICAL SECTION

OTTAWA ROAD
TYPICAL SECTION

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LONGSHORE INDIANA OTTAWA ARGO AMHERST WATERMAIN

TYPICAL SECTION

HMA APPLICATION ESTIMATE

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<td>INCLUDE IN COST OF HMA ITEM</td>
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LONGSHORE INDIANO OTTAWA ARGON AMHERST WATERMAIN
STORM SEWER AND TRENCH DETAILS

STANDARD MANHOLE (TYPE I)

SINGLE INLET STRUCTURE SD-S-10

INLET-JUNCTION CHAMBER SD-S-9

UTILITY TRENCH-TYPE I SD-TD-1 (MODIFIED)
(UNDER HMA PAVEMENT)

UTILITY TRENCH-TYPE II SD-TD-2 (MODIFIED)
(UNDER GRAVEL ROAD)

TRENCH DETAIL FOR UNDER DRAIN
(UNDER HMA PAVEMENT)

AGGREGATE BASE COURSE
SAND SUB-BASE
Know what's below. Call before you dig.
GENERAL NOTES
1. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE.
2. WHERE IT IS NOT FEASIBLE TO PROVIDE AN APR ON THE OTHER SIDE OF THE STREET, MINIMIZE DISRUPTION TO PEDESTRIANS TO THE MAXIMUM EXTENT FEASIBLE BY PROVIDING POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK
3. SHALL HAVE A 7 FOOT MINIMUM FIRM, STABLE, AND SLIP RESISTANT TEMPORARY WALKWAY SURFACE TO COVER SHORT PERIODS contrary TO TPAR STANDARDS.
4. PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR.
5. PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO TRAFFIC CONTROL DEVICES HAS CAUSED A SITUATION THAT THE VISIBILITY OF IS REDUCED.
6. CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.
7. THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS SHALL BE COVERED IN A LOCATION OTHER THAN ACROSS THE STREET FROM THE SIDEWALK CLOSURE.
8. REPORTING HAZARDS.

SPECIFIC NOTES
1. PROVIDE PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES.
2. SIGNS, MARKINGS, BARRIEARS, AND CHANNELIZING DEVICES SHALL BE PROVIDED AND AN ALTERNATE ROUTE SHALL BE POSTED WHEN THE PRIMARY TEMPORARY PEDESTRIAN ACCESS ROUTE IS NON-COMPLIANT TO TPAR STANDARDS.
3. TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NEEDED TO CONTROL PEDESTRIAN TRAFFIC. SIGNAGE, VS ARMA TRANSIT, IS REQUIRED TO PROVIDE PEDESTRIAN ROUTE (APR) AT ALL TIMES. PEDESTRIANS WITH NO AVAILABLE DETOUR, IDENTIFY ONE OPEN SIDEWALK AT ALL TIMES.
4. PROVIDE A SMOOTH, CONTINUOUS, HAD SURFACE THROUGH THE LENGTH OF THE APR.
5. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE.
6. PROVIDE THE APR ON THE SAME SIDE OF THE STREET AS THE DISRUPTED ROUTE.

PEDESTRIAN DETOUR USING OPPOSITE SIDE OF STREET

OTHER SIDE OF STREET DETOUR OR DETOUR WITH TRAILBLAZING SIGNS
(FOR CORNER SIDEWALK CLOSURE WITH OPTIONAL TEMPORARY CROSSWALK)

PEDESTRIAN TEMPORARY TRAFFIC CONTROL NOTES
1. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN ACCESS ROUTE (APR) ON THE SAME SIDE OF THE STREET AS THE CLOSED SIDEWALK.
2. WHETHER THE APR IS BEING CLOSED, A TEMPORARY PEDESTRIAN ACCESS ROUTE (TPAR) SHALL BE PROVIDED AT LEAST EVERY 200 FEET. THE SURFACE OF THE TPAR SHALL LEAD PEDESTRIANS INTO CONFLICTS WITH MOVING TRAFFIC, OR DEACTIVATED BY THE CITY OF ANN ARBOR.
3. THE CONTRACTOR SHALL SCHEDULE AND COMPACTED GRAVEL, AGGREGATE, OR SLAG MATERIALS ARE NOT ALLOWED. PROVIDE A TEMPORARY WALKWAY TO COVER SHORT PERIODS contrary TO TPAR STANDARDS.
4. PROVIDE A SMOOTH, CONTINUOUS, HARD SURFACE THROUGH THE LENGTH OF THE APR.
5. PROVIDE AN ALTERNATE PEDESTRIAN ROUTE (APR) AT ALL TIMES. FOR ROADWAYS WITH NO TRAFFIC CONTROL DEVICES HAS CAUSED A SITUATION THAT THE VISIBILITY OF IS REDUCED.
6. CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.
7. THE PEDESTRIAN TRAFFIC SIGNALS CONTROLLING CLOSED CROSSWALKS SHALL BE COVERED IN A LOCATION OTHER THAN ACROSS THE STREET FROM THE SIDEWALK CLOSURE.
GENERAL NOTES

RAILINGS OR OTHER OBJECTS MAY PROTRUDE A MAXIMUM OF 4 INCHES INTO THE WALKWAY CLEAR SPACE WHEN LOCATED A MINIMUM OF 27 INCHES ABOVE THE WALKWAY SURFACE.

ANY PEDESTRIAN DEVICES USED TO PROVIDE POSITIVE PROTECTION FOR PEDESTRIANS OR WORKERS SHALL MEET NCHRP 350 CRASHWORTHY REQUIREMENTS APPROPRIATE FOR THE BARRIER'S APPLICATION.

BARRICADES SHALL BE PLACED CONTINUOUSLY ACROSS THE ENTIRE WIDTH OF THE WALKWAY SURFACE BEING CLOSED.

SPECIFIC NOTES

ANY TRIPPING HAZARD IN THE WALKWAY NEEDS A DETECTABLE EDGE. BALLAST SHALL BE LOCATED BEHIND OR INTERNAL TO THE DEVICE. ANY SUPPORT ON THE FRONT OF THE DEVICE SHALL NOT EXTEND INTO THE 48 INCH MINIMUM WALKWAY CLEAR SPACE AND SHALL NOT EXCEED 0.5 INCHES IN HEIGHT ABOVE THE WALKWAY SURFACE.

DETECTABLE EDGES SHALL BE CONTINUOUS AND A MINIMUM OF 6 INCHES HIGH ABOVE THE WALKWAY SURFACE.

DEVICES SHALL NOT BLOCK WATER DRAINAGE FROM THE WALKWAY. A GAP HEIGHT OR OPENING FROM THE WALKWAY SURFACE UP TO A MAXIMUM OF 2 INCHES IS ALLOWED FOR DRAINAGE PURPOSES.

WHEN HAND GUIDANCE IS REQUIRED, THE TOP RAIL OR TOP SURFACE SHALL:
- BE IN A VERTICAL PLANE PERPENDICULAR TO THE WALKWAY ABOVE THE DETECTABLE EDGE.
- BE CONTINUOUS AT A HEIGHT OF 34 TO 38 INCHES ABOVE THE WALKWAY SURFACE, AND
- BE SUPPORTED WITH MINIMAL INTERFERENCE TO THE PEDESTRIAN'S HANDS OR FINGERS.

ALL DEVICES SHALL BE FREE OF SHARP OR ROUGH EDGES, AND FASTENERS (BOLTS) SHALL BE ROUNDED TO PREVENT HARM TO HANDS, ARMS OR CLOTHING OF PEDESTRIANS.

ALL DEVICES USED TO CHANNELIZE PEDESTRIAN FLOW SHOULD INTERLOCK SUCH THAT GAPS DO NOT ALLOW PEDESTRIANS TO STRAY FROM THE INTENDED CHANNELIZED PATH.

DEVICES SHALL BE WATERPROOF AND NOT WASH OUT (CONCRETE, ASPHALT, OR PLASTIC MATERIALS ARE NOT ALLOWED).

LONGITUDINAL CHANNELIZING DEVICES FOR PEDESTRIANS SHALL BE 32 INCHES IN HEIGHT OR GREATER.

TEMPORARY PEDESTRIAN ACCESS

PEDESTRIAN CHANNELIZER USING A BARRIER (MINIMUM REQUIREMENTS)

PEDESTRIAN CHANNELIZER (MINIMUM REQUIREMENTS)

NARROW TEMPORARY PEDESTRIAN ACCESS ROUTE PASSING DETAIL

LONGSHORE INDIANOLA OTTAWA ARGON AMHERST WATERMAIN TP CR WALKWAY DEVICES

TYPICAL AUDIBLE MESSAGE DEVICE LOCATION WHEN USED

SIDEWALK BARRICADE

20' MIN. SPACING FROM LAST PASSING SPACE

20' MIN. SPACING FROM LAST PASSING SPACE

20' MIN. SPACING FROM LAST PASSING SPACE

20' MIN. SPACING FROM LAST PASSING SPACE
Know what's below. Call before you dig.
CAUTION
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CAUTION
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REMOVAL KEY

[Table with key items and descriptions]
LONGSHORE DRIVE

REMOVAL KEY

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19 OF 54
LONGSHORE DRIVE

CAUTION

PR WATER LONGSHORE

WATER MAIN STRUCTURE TABLE

PLAN: 1" = 20'
PROFILE: 1" = 2'

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LONGSHORE INDIANOLA OTTAWA ARGO AMHERST WATERMAIN
LONGSHORE DRIVE
WATER MAIN - STA. 4+00 - STA. 7+50

SEE SHEET 20
STA: 4+00

STA: 7+50
SEE SHEET 22
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LONGSHORE DRIVE
CAUTION

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Know what's below. Call before you dig.
Know what's below.
Call before you dig.
know what's below. call before you dig.
BM-17

550
600
1515
1514
1511
1508
1507
1505
1502
1503
409
287
ARGO DRIVE
OTTAWA ROAD
INDIANOLA AVENUE

1" = 20'

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LONGSHORE INDIANOLA OTTAWA
ARGO AMHERST WATERMAIN
OTTAWA ROAD
ROAD

CONSTRUCTION KEY

HMA
CG
DO-M
DC-6
SW-4
SWR-6
DWS
ABO

1
2
Know what's below. Call before you dig.
Know what's below. Call before you dig.
Know what's below. Call before you dig.
PR WATER ARGO

WATER MAIN STRUCTURE TABLE

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ARGO DRIVE
PONTIAC TRAIL

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ARGO AMHERST WATERMAIN
LONGSHORE INDIANOLA OTTAWA

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# WATER MAIN STRUCTURE TABLE

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