MOUND GROVE TYPICAL

PROPOSED GROUNDLINE

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

MOUND GROVE TYPICAL

PROPOSED GROUNDLINE

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

WING WALL II

ELEVATION

SCALE 1" = 1'-0"

WING WALL IV

ELEVATION

SCALE 1" = 1'-0"

18'-6"

WING WALL III

3'-14" THREE STRAND TUBE BRIDGE RAILING

WING WALL IV

20'-0"

3'-14" THREE STRAND TUBE BRIDGE RAILING

CHEEK WALL

MOUND GROVE TYPICAL

PROPOSED GROUNDLINE

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

WING WALL II

ELEVATION

SCALE 1" = 1'-0"

WING WALL IV

ELEVATION

SCALE 1" = 1'-0"

TOP OF CURB WALL

3'-0"

TOP OF STOREWALL

5'-0"

CONSTR. JOINT

CONSTR. JOINT

MOUND GROVE TYPICAL

PROPOSED GROUNDLINE

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

WING WALL II

ELEVATION

SCALE 1" = 1'-0"

WING WALL IV

ELEVATION

SCALE 1" = 1'-0"

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

WING WALL II

ELEVATION

SCALE 1" = 1'-0"

WING WALL IV

ELEVATION

SCALE 1" = 1'-0"

18'-6"

WING WALL III

3'-14" THREE STRAND TUBE BRIDGE RAILING

WING WALL IV

20'-0"

3'-14" THREE STRAND TUBE BRIDGE RAILING

CHEEK WALL

MOUND GROVE TYPICAL

PROPOSED GROUNDLINE

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

WING WALL II

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SCALE 1" = 1'-0"

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TOP OF CURB WALL

3'-0"

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EL. 393.00

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WING WALL II

ELEVATION

SCALE 1" = 1'-0"

WING WALL IV

ELEVATION

SCALE 1" = 1'-0"

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

WING WALL II

ELEVATION

SCALE 1" = 1'-0"

WING WALL IV

ELEVATION

SCALE 1" = 1'-0"

18'-6"

WING WALL III

3'-14" THREE STRAND TUBE BRIDGE RAILING

WING WALL IV

20'-0"

3'-14" THREE STRAND TUBE BRIDGE RAILING

CHEEK WALL

MOUND GROVE TYPICAL

PROPOSED GROUNDLINE

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

WING WALL II

ELEVATION

SCALE 1" = 1'-0"

WING WALL IV

ELEVATION

SCALE 1" = 1'-0"

TOP OF CURB WALL

3'-0"

TOP OF STOREWALL

5'-0"

CONSTR. JOINT

CONSTR. JOINT

MOUND GROVE TYPICAL

PROPOSED GROUNDLINE

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

WING WALL II

ELEVATION

SCALE 1" = 1'-0"

WING WALL IV

ELEVATION

SCALE 1" = 1'-0"

6" OIA. PVC DRAIN PIPE

EL. 393.00

APPROXIMATE EXISTING GROUNDLINE

WING WALL II

ELEVATION

SCALE 1" = 1'-0"

WING WALL IV

ELEVATION

SCALE 1" = 1'-0"
BORING LOG B-7

LOCATION:  Springvale Rd.  
PROJECT:  Boring B-7  
DATE:  3/15/2000  
METHOD:  Diamond Core  
SAMPLE:  Wet Sample  
HANDED:  Right Hand  
CORE:  6"  
SAMPLE:  Bulk Sample  

CL.  301.15  
ATTACHED AT BOTTOM OF FOOTING  

CL.  284.00  
ESTIMATED FILE TIP ELEVATION

METHANE, PROPYLENE, ETHER, ETHANOL, NAPHTHALENE, LIGHT OIL, Methylene Chloride and DMTAC CHLORIDE

REMARKS:  (1) Difficult 20 Min due to large trees.  (2) Long term water reading may be affected by snow melting.  (3) Water encountered at 5' during drilling.

BORING LOG B-8

LOCATION:  Springvale Rd.  
PROJECT:  Boring B-8  
DATE:  3/15/2000  
METHOD:  Diamond Core  
SAMPLE:  Wet Sample  
HANDED:  Right Hand  
CORE:  6"  
SAMPLE:  Bulk Sample  

CL.  301.15  
ATTACHED AT BOTTOM OF FOOTING  

CL.  284.00  
ESTIMATED FILE TIP ELEVATION

METHANE, PROPYLENE, ETHER, ETHANOL, NAPHTHALENE, LIGHT OIL, Methylene Chloride and DMTAC CHLORIDE

REMARKS:  (1) Long term water reading may be affected by snow melting.

FOR PERMITTING - COMPLETE BRIDGE CONSTRUCTION PLANS UNDER SEPARATE SUBMITTAL.
**BORING LOG**

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Material Description</th>
<th>Diameter (in)</th>
<th>Notes</th>
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<td>Surface Erosion (silt)</td>
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<td>Lightly Weathered Rhyolite breccia, Very Dotazy, Very Weak Structure</td>
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<td>Siltstone (consolidated)</td>
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<td>20.0</td>
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<td>30.0</td>
<td>Lightly Weathered Rhyolite breccia, Very Dotazy, Very Weak Structure</td>
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</tbody>
</table>

**FOR PERMITTING - COMPLETE BRIDGE CONSTRUCTION PLANS UNDER SEPARATE SUBMITTAL.**

**BORINGS AND DRIVE TESTS**

- **Downtown Columbia Crescent Neighborhood**
- **Columbia, Maryland**
- **January 16, 2018**
- **Sheet 3 of 3**

**Prepared for:**
- **Howard Hughes Corporation**
- **Hostile Environment**

**Professionally Directed:**
- **George S. K. Hughes**
- **Howard Hughes Corporation**
- **Code of Ethics**

**For Questions Concerning This Plan, Please Contact:**
- **George S. K. Hughes**
- **410-924-5043**

**For Borings Location Plans, See Sheet 1.**
TRAFFIC CONTROL NOTES

1. ALL TEMPORARY TRAFFIC SIGNS, BARRENCASES AND OTHER TRAFFIC CONTROL DEVICES USED FOR MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND THE MARYLAND STATE HIGHWAY ADMINISTRATION (MDSHA) BOOK OF STANDARDS AND SPECIFICATIONS.

2. ALL TEMPORARY TRAFFIC SIGNS SHALL BE INSTALLED IN ACCORDANCE TO MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS FOR CONSTRUCTION ON MATERIALS, SECTION 104.08

3. WARNING SIGNS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT EXISTING TRAFFIC CONTROL DEVICES.

4. ANY CORRECTIONS, MODIFICATIONS, OR ADJUSTMENTS TO THE PLAN SHALL BE APPROVED BY HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS, TRAFFIC DIVISION.

5. MISS UTILITY SHALL BE NOTIFIED PRIOR TO PLACEMENT OF SIGNING, IF MOUNTING ON POSTS.

6. HOWARD COUNTY BUREAU OF ENGINEERING/TRANSPORTATION PROJECTS DIVISION (410-313-2014) SHALL BE NOTIFIED 24 HOURS PRIOR TO ANY WORK.

7. THE HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS TRAFFIC DIVISION RESERVES THE RIGHT TO MODIFY OR ADJUST THE PLAN TO FIT SITE CONDITIONS AT ANY TIME.

8. SIGN INSTALLATION SHALL NOT LAST ANY LONGER THAN 15 MINUTES PER LOCATION. IF LONGER THAN 15 MINUTES APPROPRIATE TRAFFIC CONTROL AND PERMITS SHALL BE USED.

9. ALL SIGNS SHALL CONFORM TO CURRENT MSHA AND REFLECTIVITY REQUIREMENTS.

10. ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS UNLESS PERMISSION FOR CLOSURE IS GRANTED BY THE PROPERTY OWNER/MAJORER. HOWEVER, ACCESSIBILITY FOR EMERGENCY VEHICLES SHALL BE MAINTAINED AT ALL TIMES.

11. ALL FLAGGERS SHALL BE CERTIFIED BY THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION.

12. ALL TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM VIEW TO ONCOMING TRAFFIC WHEN NOT IN USE.

13. NO HAZARDOUS MATERIALS SHALL BE STORED WITHIN THE PUBLIC RIGHT-OF-WAY.

14. ANY TEMPORARY TRAFFIC SIGNING AND MARKINGS THAT MAY CONFLICT WITH NORMAL TRAFFIC FLOW SHALL BE REMOVED OR COVERED AT THE END OF EACH DAY DURING CONSTRUCTION ON THIS PROJECT.

15. ALL EXISTING TRAFFIC CONTROL DEVICES THAT MUST BE REMOVED SHALL BE REPLACED IN THEIR PROPER LOCATION PRIOR TO THE COMPLETION OF THE PROJECT. COST FOR THE REPLACEMENT AND/OR REPAIR OF DEVICES DAMAGED AS A RESULT OF THE PROJECT SHALL BE ASSESSED TO THE CONTRACTOR.

16. AT THE COMPLETION OF THE PERMITTED WORK ACTIVITY, CONDITIONS WITHIN THE PUBLIC SPACE SHALL BE FULLY RESTORED TO THOSE WHICH EXISTED PRIOR TO THE WORK ACTIVITY.

17. WHEN PAVEMENT MARKINGS HAVE BEEN EXTERMINATED BY THE WORK ACTIVITY, THE CONTRACTOR SHALL INSTALL ANY CRITICAL INTERMEDIATE MARKING PRIOR TO THE END OF THE WORK DAY.

18. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES. AT ANYTIME THE CONTRACTOR DOES NOT MAKE NECESSARY REPAIRS WITHIN 24 HOURS OF NOTIFICATION, APPROPRIATE WORK TIME REDUCTION AND/OR FINES MAY APPLY.

19. ALL WORK WITHIN PUBLIC RIGHT OF WAY AND/OR LANE CLOSURE MUST ONLY BE PERFORMED DURING THE HOURS OF 7AM TO 10PM, OR AT TIMES DIRECTED BY HOWARD COUNTY TRAFFIC DIVISION.

20. NO LANE CLOSURES PERMITTED DURING SPECIAL MERRMEEWEATHER EVENTS AND CONCERTS AND MASSIVE HOLIDAYS.

21. THE CONTRACTOR AND/OR THE DEVELOPER MUST COORDINATE WITH MERRMEWEATHER POST PAVILION DURING SPECIAL EVENTS AND CONCERTS. WORK MUST BE RESTRICTED TO AVOID CONFLICTS DURING THESE TIMES, AS DIRECTED BY HOWARD COUNTY TRAFFIC DIVISION.

22. THE TERMINAL ENDS OF THE CONCRETE JERSEY BARRIER SHALL BE PROTECTED BY A HOWARD COUNTY APPROVED IMPACT ATTENUATOR.

FLAGGING OPERATION

1. FLATING OPERATIONS SHALL BE UTILIZED TO CONTROL ACCESS TO DRIVEWAYS LOCATED IN THE WORK ZONE.

2. FLATING OPERATIONS SHALL BE UTILIZED IN ACCORDANCE WITH MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION STANDARD SPECIFICATIONS AND MATERIALS, SECTION 104.31-01 AND SECTION 9.0 ON MARYLAND STANDARD MD 104.00-11 AND MD 104.00-12.
STAGE I
CONSTRUCTION OF TEMPORARY AND PROPOSED SYMPHONY WOODS ROAD ALIGNMENT AND UNDERGROUND UTILITIES.

SEQUENCE OF CONSTRUCTION:
1. INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON PLAN AND IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS AND REQUIREMENTS, OR AS DIRECTED BY THE COUNTY ENGINEER IN FIELD.
2. CONSTRUCT UTILITIES AS SHOWN IN SHINGLED WORK ZONES (INCLUDING TRAFFIC SIGNAL CONCEPT).
3. DETOUR TRAFFIC THROUGH TobiS PARKING LOT.
4. REMOVE PORTION OF EXISTING SYMPHONY WOODS ROAD PAVEMENT.
5. BEGIN CONSTRUCTION OF PROPOSED SYMPHONY WOODS ROAD ALIGNMENT.
STAGE II
CONSTRUCTION OF PROPOSED SYMPHONY WOODS ROAD ALIGNMENT AND UNDERGROUND UTILITIES.

SEQUENCE OF CONSTRUCTION:
1. INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON PLAN AND IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS AND REQUIREMENTS, OR AS DIRECTED BY THE COUNTY ENGINEER IN FIELD.
2. CONSTRUCT UTILITIES AS SHOWN IN SHARED WORK ZONES (INCLUDING TRAFFIC SIGNAL CONDUIT).
3. CONTINUE TO MAINTAIN TRAFFIC THROUGH TOBY'S PARKING LOT.
4. CONTINUE CONSTRUCTION OF PROPOSED SYMPHONY WOODS ROAD ALIGNMENT.
5. REMOVE PORTION OF EXISTING SOUTH ENTRANCE ROAD ALIGNMENT.

LEGEND
- CHANNELIZING DEVICES
- SIGN SUPPORT
- FACE OF SIGN
- DIRECTION OF TRAFFIC
- WORK ZONE (REMOVAL OF EXISTING PAVEMENT)
- EXISTING PAVEMENT TO REMAIN
- TYPE III BARRICADE
- FLAGGER STATION
- LIMITS OF DISTURBANCE (LOD)
- CONCRETE JERSEY BARRIER
- TEMPORARY ASPHALT
STAGE III
CONSTRUCTION OF PROPOSED SYMPHONY WOODS ROAD ALIGNMENT AND UNDERGROUND UTILITIES.

SEQUENCE OF CONSTRUCTION:
1. INSTALL TRAFFIC CONTROL DEVICES AS SHOWN ON PLAN AND IN ACCORDANCE WITH HOWARD COUNTY SPECIFICATIONS AND REQUIREMENTS, OR AS DIRECTED BY THE COUNTY ENGINEER IN FIELD.
2. CONSTRUCT UTILITIES AS SHOWN IN SHADED WORK ZONES.
3. ALLOW TRAFFIC ON NEWLY CONSTRUCTED PORTIONS OF PROPOSED SYMPHONY WOODS ROAD.
4. REMOVE PORTION OF EXISTING SOUTH ENTRANCE ROAD ALIGNMENT.

LEGEND
- CHANNELIZING DEVICES
- FACE OF SIGN
- DIRECTION OF TRAFFIC
- WORK ZONE (REMOVAL OF EXISTING PAVEMENT)
- EXISTING PAVEMENT TO REMAIN
- TYPE III BARRICADE
- FLAGGER STATION
- LIMITS OF DISTURBANCE (LOD)
- CONCRETE JERSEY BARRIER