# Earthwork Summary

**Excavation**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roadway Excavation, Earth Available For Embankment, Common</td>
<td>7300 C.Y.</td>
</tr>
<tr>
<td>Excavation Of Bunchgrass</td>
<td>38000 C.Y.</td>
</tr>
<tr>
<td>Less Stripping In Cuts</td>
<td>0 C.Y.</td>
</tr>
<tr>
<td><strong>Total Roadway Excavation, Earth</strong></td>
<td><strong>4752 C.Y.</strong></td>
</tr>
</tbody>
</table>

**Embarkment**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embankment, In-Required</td>
<td>12630 C.Y.</td>
</tr>
<tr>
<td>Embankment From Plan Sheets</td>
<td>5400 C.Y.</td>
</tr>
<tr>
<td>Embankment For Bunchgrass</td>
<td>38000 C.Y.</td>
</tr>
<tr>
<td>Stripping In Pile</td>
<td>4272 C.Y.</td>
</tr>
<tr>
<td><strong>Total Embankment, In Required</strong></td>
<td><strong>12630 C.Y.</strong></td>
</tr>
</tbody>
</table>

**Excavated Materials Excess (Suitable For Embankment)**: **No Excess Available**

**Excavated Materials To Be Borrowed (Suitable For Embankment)**: **5400 C.Y.**

**Topsoil**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topsoil Available</td>
<td>5 C.Y.</td>
</tr>
<tr>
<td>Stripping In Cuts</td>
<td>4272 C.Y.</td>
</tr>
<tr>
<td><strong>Total Stripping Available For Topsoil</strong></td>
<td><strong>4272 C.Y.</strong></td>
</tr>
</tbody>
</table>

**Topsoil Required**

<table>
<thead>
<tr>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topsoil, 4&quot; Thick From Plan Sheets</td>
<td>38000 C.Y.</td>
</tr>
<tr>
<td>Topsoil, 4&quot; Thick In Cut</td>
<td>38000 C.Y.</td>
</tr>
<tr>
<td>Topsoil, 4&quot; Thick In Pile</td>
<td>38000 C.Y.</td>
</tr>
</tbody>
</table>

**Stripping Materials Excess (Suitable For Topsoil)**: **527 C.Y.**

**Stripping Materials To Be Borrowed**: **No Borrow Required**

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**Notes:**

1. If additional suitable material for embankment is obtained from any excavation, the quantity of borrow will be reduced accordingly.

2. If additional suitable material for topsoil is obtained from any stripping, the quantity of topsoil will be reduced accordingly.
TURTLE EXCLUSION FENCE (GROUND MOUNTED)

NOTES:
1. ANCHOR POST AND TOP POST SHALL BE OF EQUAL WEIGHT/FEET.
2. SOIL ANCHOR PLATE SHALL BE ATTACHED TO ALL ANCHOR POSTS.
3. THE MATERIAL FOR THE SOIL ANCHOR PLATES SHALL BE CARBON SHEET STEEL.
4. THE STEEL "U" POST SHALL BE GRADE 60.

TYPE 1 STEEL U-POST

TYPE 1 SOIL ANCHOR PLATE

ANCHOR POST ASSEMBLY

SIGN SUPPORTS

NOTE: DRIVE ANCHOR POST ASSEMBLY TOWARDS APPROXIMATELY 1 INCH ABOVE GROUND LEVEL PLACE BOLT AND WASHER IN FIRST AND FIFTH HOLES FROM THE TOP END AND SECURE BOLTS ONTO SPACER.

DIG OUT AROUND BACK OF ANCHOR POST ASSEMBLY TO ALLOW ROOM FOR TOP POST TO BE ATTACHED.

NEST TOP POST ASSEMBLY ONTO PROTRUDING ANCHOR POST ASSEMBLY BOLTS THROUGH THE FIRST AND FIFTH HOLES FROM THE BOTTOM OF THE TOP POST.

PLACE AND TIGHTEN A SELF-LOCKING PLANGE NUT ON EACH BOLT WHEN INSTALLATION IS COMPLETE TOP OF GROUND POST SHALL NOT EXCEED 4 INCHES ABOVE GROUND LEVEL.

SIZE OF CONNECTOR BOLT FOR TYPE 1 5/8" x 1 1/2" 

THE CONNECTOR BOLTS SHALL BE FULLY THREADED. EACH CONNECTOR BOLT AND NUT SHALL BE CLEARLY STAMPED WITH MANUFACTURER'S IDENTIFYING MARK.
15" x VARIABLE HEIGHT CONCRETE BARRIER CURB, DOWELLED

CONCRETE ISLAND PAVEMENT, 4" THICK
CONCRETE CLASS B

FLEXIBLE DELINERATOR (TYPE)
CONCRETE CLASS B

PROPOSED HMA PAVEMENT (TYPE)
CONCRETE CLASS B

NOTE:
1. SEE GENERAL NOTES APPLICABLE TO ALL BARRIER CURB CD-607-2.8.
2. COMPACTION SHALL BE IN ACCORDANCE WITH THE DIRECTED METHOD OF THE NUDOT standard specifications and its supplements.
3. THE FILL BETWEEN THE CURBS SHALL BE SHAPED AND COMPACTED TO A FIRM EVEN SURFACE. UNSTABLE MATERIAL SHALL BE REMOVED AND REPLACED WITH ACCEPTABLE MATERIAL WHICH SHALL BE COMPACTED.
4. SOIL Lifts SHALL BE LIMITED TO 12 INCHES AND EACH LIFT SHALL BE COMPACTED.

CONCRETE VERTICAL CURB
REINFORCEMENT STEEL 6" LONG TO BE SET IN MORTAR IN DRILLED HOLES SPACED 4" O.C. TO 6" LONGITUDINALLY (TYPE)

#36 REINFORCEMENT STEEL 8" LONG TO BE SET IN MORTAR IN DRILLED HOLES SPACED 4" O.C. TO 6" LONGITUDINALLY (TYPE)

#36 REINFORCEMENT STEEL 6" LONG, 6'-0" TO 0'-0" LONGITUDINALLY (TYPE)

GRAY CONCRETE, CLASS B

DEFINITIONS:
HMA = HOT MIX ASPHALT
BARRIER CURB AND VERTICAL CURB
N.Y.S.

CONSTRUCTION DETAILS
SEA ISLE BOULEVARD (C.R. 625)
FROM GARDEN STATE PARKWAY TO BRIDGE OVER HUDLAM THOROFARE
COUNTY OF CAPE MAY
TYPICAL DECELERATION LANE TREATMENT

<table>
<thead>
<tr>
<th>RPM SPACING AT GORE</th>
<th>L1</th>
<th>L2 AT 45' SPACING</th>
</tr>
</thead>
<tbody>
<tr>
<td>50' &amp; 100'</td>
<td>50'</td>
<td>50' &amp; 100'</td>
</tr>
<tr>
<td>0' &amp; 50'</td>
<td>50'</td>
<td>50' &amp; 100'</td>
</tr>
</tbody>
</table>

USE 10' SPACING WHERE NO AUXILIARY LANE IS PROVIDED.

TYPICAL ACCELERATION LANE TREATMENT

TYPICAL PAVED MEDIAN TREATMENT

LEGEND
1. RPM, MONO-DIRECTIONAL WHITE LENS
2. RPM, MONO-DIRECTIONAL AMBER LENS

RAISED PAVEMENT MARKER, (RPM) LOCATION

CONSTRUCTION DETAILS
SEA ISLE BOULEVARD (C.R. 625)
FROM GARDEN STATE PARKWAY TO
BRIDGE OVER LUDLAM THOROFARE

COUNTY OF CAPE MAY

McCormick Taylor, Inc.
TYPICAL DIVISIONAL ISLAND TREATMENT

NOTE:
80 FOOT SPACING ON TANGENT FOR SPACING ON CURVES SEE CD-610-2.3

TYPICAL TWO LANE SECTION

NOTE:
FOR SPACING ON CURVES SEE CD-610-2.3

NARROW BRIDGE OR CULVERT TREATMENT

RAISED PAVEMENT MARKER, (RPM) LOCATION

TYPICAL LEFT TURN LANE SECTION

LEGEND

<table>
<thead>
<tr>
<th>RPM</th>
<th>RPM, MONO-DIRECTIONAL WHITE LENS</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;G&quot;</td>
<td>RPM, MONO-DIRECTIONAL AMBER LENS</td>
</tr>
<tr>
<td>&quot;N&quot;</td>
<td>RPM, BI-DIRECTIONAL AMBER LENS</td>
</tr>
</tbody>
</table>

CD-610-2.1
CD-610-2.4
CD-610-2.2
CD-610-2.3
CD-610-2.5

COUNTY OF CAPE MAY
CONSTRUCTION DETAILS
SEA ISLE BOULEVARD (C.R. 625)
FROM GARDEN STATE PARKWAY TO BRIDGE OVER LUDLAM THOROFARE

McCormick Taylor

CD-610-2.1
CD-610-2.4
CD-610-2.2
CD-610-2.3
CD-610-2.5
Permanent sheeting and fence location detail

Notes:
1. Steel sheet pile data
   (A) Minimum section modulus required = 83,7 in.3.
   (B) Steel sheet piles shall conform to ASTM A572 Grade 60.
   (C) Apply coal tar epoxy paint black color in accordance with the standard specifications extending coating 4" below finished ground line.
2. Coat of concrete cap and reinforcement bars to be included under any item steel sheet piling.
3. For concrete cap details see construction details sheet CT-15.

County of Cape May

Construction Details
Sea Isle Boulevard (C.R. 625) from Garden State Parkway to bridge over Ludlam Thorofare

McConrick & Taylor, Inc.

WALER DETAILS

CONCRETE CAP DETAILS

CONCRETE CAP DETAIL

SECTIONS VIEW
SCALE: 1/4" = 1'-0"

CONNECTION DETAIL
SCALE: 1/2" = 1'-0"

VIEW BB
SCALE: 1/4" = 1'-0"

NOTES:
1. CONCRETE CAPS AND ANCHOR BLOCKS SHALL BE CLASS "B" CONCRETE.
2. REINFORCEMENT BARS SHALL CONFORM TO ASTM A615, GRADE 60. REINFORCEMENT BARS SHALL BE SPOTCOATED IN ACCORDANCE WITH ASTM A775.
3. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REINFORCEMENT BAR DETAILS PRIOR TO START OF CONCRETE CAP CONSTRUCTION.
4. WALER CHANNELS, TIE RODS, AND BEARING PLATES SHALL CONFORM TO ASTM A366, GRADE 60.
5. NUTS AND WASHERS FOR TIE RODS SHALL CONFORM TO ASTM A325 AND ASTM 490, RESPECTIVELY.
6. HOT-DIP GALVANIZED STRUCTURAL STEEL AND MISCELLANEOUS HARDWARE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
COUNTY OF CAPE MAY

SUNK'S CREEK RECREATIONAL AREA
SITE PLAN

LEGEND:
- 4" RAILING
- PROPOSED SURF
- DRAINAGE DITCH
- EXISTING DRAINAGE
- EXISTING TOP OF CHANNEL BANK
- PROPOSED AFRAIL
- SIDE OF EXISTING AFRAIL
- UNSURVEYED

LANDSCAPE SCHEDULE:

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>SYMBOL</th>
<th>QUANTITY</th>
<th>COMMON NAME</th>
<th>BOTANICAL NAME</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>811083M</td>
<td></td>
<td>23</td>
<td>ROUGH SUGAR</td>
<td>PRIVETTA</td>
<td>9&quot; 3/4 ORDER</td>
</tr>
<tr>
<td>811043M</td>
<td></td>
<td>27</td>
<td>EASTERN RED OAK</td>
<td>QUERCUS E.</td>
<td>9&quot; 3/4 ORDER</td>
</tr>
<tr>
<td>811053M</td>
<td></td>
<td>26</td>
<td>NORTHERN DIVERSE</td>
<td>MELOCA PENDULOSA</td>
<td>9&quot; 3/4 ORDER</td>
</tr>
<tr>
<td>811043M</td>
<td></td>
<td>29</td>
<td>JAPANESE BLACK PINE</td>
<td>PINUS THUNBERGI</td>
<td>9&quot; 3/4 ORDER</td>
</tr>
</tbody>
</table>

GENERAL NOTES:
1. FURROWED RESTROOMS TO BE LOCATED AND SUPPLIED BY OWNER.
2. REFERENCED PROFILE SHEET P-11 OLD-SOUTH BOULEVARD-WEST PROFILE.

STATE FEDERAL PROJECT NO.
N.D. STP-0152/041

McCormick

Gibson Associates, P.A.
PLANTING NOTES

1. PLANT PLUGS TO 1 INCH SPACING FROM CENTERS.
2. PLUGS ARE TO BE INSETTED INTO THE GROUND TO THE TOP OF THE GROWING SUBSTRATE WITH GROUND TAMPED AROUND THE PLUG TO PREVENT THE PLUG FROM BEING UNROOTED.
3. SPATIALS ALTERNATING PLUGS ARE TO BE PLANTED BETWEEN ELEVATION 18 TO 23 WITH ANY DISTURBED AND NEWLY CREATED CHANNELS.
4. SPATIALS PATENS PLUGS ARE TO BE PLANTED BETWEEN ELEVATION 2.0 TO 2.7, CONCENTRATED AT ELEVATION 2.5.
5. PLANTING SHALL OCCUR ALONG THE ENTIRE LENGTH OF ALL DISTURBED AND NEWLY CREATED CHANNELS EXTENDING AT LEAST 6 FEET FROM THE TOP OF THE DISTURBED AREA.
6. SPATIALS PATENS PLANTING AREA SHALL BE PLANTED WITH ALTERNATING PLANTED AND UNPLANTED AREAS IN ADDITION TO CROWNS, PLANTING ALONG A PLANTED AREA ALONG EACH CROWN AREA AN AREA OF BTO XXX SQ FT AND UNPLANTED AREAS AN AREA OF NO MORE THAN 800 SQ FT.
7. SEED ALL DISTURBED AREAS SURROUNDING THE WETLAND SITE ELEVATION 3.0 AND ABOVE WITH THE WETLAND SLOPE XMLD.
8. RESTORE DISTURBED WETLAND AREAS AT THE EQUALIZER REPLACEMENT NORTH SOUTHw SU, APPROXIMATE BTO 6.5 TO 8.0 SQM, WITH SPATIALS PATENS PLUGS.

GRADING NOTES

1. IN PREPARATION FOR THE ONSITE PRE-CONSTRUCTION MITIGATION MEASURES FROM APPROXIMATELY STA. 85 TO STA. 30 FEET, THE ROY PROPOSED CHAINAGE CENTERLINE AT 100 FT INTERVALS AND SLANT THE ELEVATION MAKING 100 FT INTERVALS.
2. DURING THE ONSITE PRE-CONSTRUCTION MITIGATION MEASURES TO ADJUST STAGES AND STANDS OUT SITE GRADING ADJUSTMENTS TO THE PLANS AS CREATED BY THE MD. THESE CRANES MAY INCREASE MACHINERY IN CHANNEL LOCATION AND REDUCTION IN REQUIRED SANDS DEPTH.
4. PERFORM ALL GRADING AND SOIL DECONSTRUCTING ACTIVITIES PER BMP NOTE 6.
5. RETURN THE WIDTH DEPTH AND CENTER OF THE EXISTING CHANNELS TO THE EXTENT POSSIBLE NO WORK IS TO OCCUR WITHIN EXISTING CHANNELS EXCEPT FOR ADJUSTMENTS WITH NEW CHANNELS.
6. LIST DISTURBANCES/GRADING OF EXISTING WETLAND AREAS BELOW ELEVATION 2.5 TO ONLY WHAT IS REQUIRED TO ATTAIN THE WAT OF THE SITE PLANTING AREAS.
7. IN THE CASE OF WETLAND WHICH ARE FINE ONWARD BURLINGTON AREAS TO BE REQUIRED TO ATTAIN THE WAT OF THE SITE PLANTING AREAS.

WETLAND SLOPE SEED MIX

- RED BLOOM 10%
- AMERICAN GERMIN
- BLOOM 20%
- SCOTTISH CIR
- ELEGANT GLASSWICK 30%
- SOUTHERN CIR
- SOUTHERN CIR 30%
- PAMPAS CIR
- FOUNTAIN CIR
- SOUTHERN CIR 10%
- COASTAL CIR

BEST MANAGEMENT PRACTICES REQUIREMENTS

- REFERENCE TO THE APPROVED PLANS ALL ASPECTS OF THE APPLIABLE ENVIRONMENTAL/PERMIT PLANS, INCLUDING THE USING ENVIRONMENTAL AND CONDITIONS AND THE MATCHING CONDITIONS DEVELOPED WITH PREFERENCE BETWEEN THE CONTRACTOR AND RENDERS/ENGINEER ARE TO COORDINATE PERFORM ALL WETLAND SITE ACTIVITIES AS DIRECTED BY THE MD.
- NO CHANGES TO THE WETLAND DESIGN ARE ALLOWED AFTER THE PREPARED WRITTEN APPROVAL OF THE MD AND USAGE PRIOR TO THE COMMENCEMENT OF ANY SBK RECONSTRUCTION WORK.
- ALL WETLAND SITE ACTIVITIES ARE TO BE PERFORMED BY THE CONTRACTOR AND RENDERS/ENGINEER AND ALL ACTIVITIES ARE TO BE PERFORMED PERORDERED AS DIRECTED BY THE MD.
- NO CHANGES TO THE WETLAND DESIGN ARE ALLOWED AFTER THE PREPARED WRITTEN APPROVAL OF THE MD AND USAGE PRIOR TO THE COMMENCEMENT OF ANY SBK RECONSTRUCTION WORK.
- ALL WETLAND SITE ACTIVITIES ARE TO BE PERFORMED BY THE CONTRACTOR AND RENDERS/ENGINEER AND ALL ACTIVITIES ARE TO BE PERFORMED PERORDERED AS DIRECTED BY THE MD.
NOTE: THE EARTHWORK QUANTITY CALCULATIONS SHOWN ON EACH CROSS-SECTION ARE FOR THE MITIGATION AREA ONLY.
NOTE: THE EARTHWORK QUANTITY CALCULATIONS SHOWN ON EACH CROSS-SECTION ARE FOR THE MITIGATION AREA ONLY.
## Earthwork Summary

### Excavation

- **Roadway Excavation, Earth Available for Embankment, Common:**
  - Excavation from Cross Sections (Compensatory Mitigation Plans): 1,400 CY.
  - Excavation from Plan Sheets: 0 CY.
  - Less: Stripping in Cuts: 0 CY.
  - Total Excavation Available for Embankment, Common (including 5% Granulage): 1,400 CY.

### Embankment

- **Embarkment, 11 Required:**
  - Embarkment from Cross Sections (Compensatory Mitigation Plans): 0 CY.
  - Embarkment from Plan Sheets: 0 CY.
  - Stripping in Fills: 0 CY.
  - Total Embarkment, 11 Required: 0 CY.

### Excavated Materials

- **Excavated Materials Excess (Suitable for Embankment):** 120 CY.
- **Excavated Materials to be Borrowed (Suitable for Embankment):** No Borrow Required.

### Topsoil

- **Topsoil Available:**
  - Stripping in Cuts: 0 CY.
  - Stripping in Fills: 0 CY.
  - Total Stripping Available for Topsoil: 0 CY.

### Topsoil Required

- **Topsoil, 4" thick from Cross Sections (Compensatory Mitigation Plans):** 0 SF.
- **Topsoil, 4" thickrequired in E.Y.:** 0 SF.
- **Topsoil, 4" thick required in C.Y.:** 0 SF.

### Stripping Materials

- **Stripping Materials Excess (Suitable for Topsoil):** No Access Available.
- **Stripping Materials to be Borrowed:** No CY.

### Notes:

1. If additional suitable material for embankment is obtained from any excavation, the quantity of borrow will be reduced accordingly.
2. If additional suitable material for topsoil is obtained from any stripping, the quantity of topsoil will be reduced accordingly.

**Note:** The earthwork quantity calculations shown on each cross-section are for the mitigation area only.