FINAL ROAD CONSTRUCTION, GRADING AND
STORMWATER MANAGEMENT PLANS

ROCKBURN MANOR
LOTS 1 THRU 22
ZONING "R-20"

TAX MAP No: 37  PARCEL No: 56  GRID No: 5

VICINITY MAP
SCALE 1" = 1200'

FIRST ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

GENERAL NOTES
1. All construction shall be in accordance with the latest standards and specifications of Howard County Public Services and administered by the Howard County Department of Public Works.
2. All construction shall be in accordance with the County's Right of Way Manual, and any special construction requirements of the Howard County Planning and Zoning Department.
3. All construction shall be in accordance with the County's Traffic and Parking Control Plan, and the Public Services Engineering Dept. shall be notified prior to any construction.
4. All public utilities, including water and sewage, shall be in accordance with the County's Water and Sewerage Engineering Dept.
5. All construction shall be in accordance with the County's Stormwater Management Plan, and all stormwater management requirements shall be met.
6. All construction shall be in accordance with the County's Solid Waste Management Plan, and all solid waste management requirements shall be met.
7. All construction shall be in accordance with the County's Signage and Landscape Plan, and all sign and landscape requirements shall be met.
8. All construction shall be in accordance with the County's Traffic Control Plan, and all traffic control requirements shall be met.
9. All construction shall be in accordance with the County's Street Tree and Street Light Plan, and all street tree and street light requirements shall be met.
10. All construction shall be in accordance with the County's Zoning Ordinance, and all zoning requirements shall be met.

ROAD CLASSIFICATION CHART

TRAFFIC CONTROL SIGNS

STREET LIGHT CHART

TRAFFIC CONTROL SIGNS

1. [List of traffic control signs]
2. [List of traffic control signs]
3. [List of traffic control signs]
4. [List of traffic control signs]
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8. [List of traffic control signs]
9. [List of traffic control signs]
10. [List of traffic control signs]
STORM WATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS

STANDARDS AND SPECIFICATIONS FOR TOPSOIL MISCELLANEOUS

Placed at hand over a compacted base and establishment of permitted application.

Plastic Pipe

1. Plastic Pipe shall be made of polyethylene and shall include a minimum of three layers of material. The pipe shall be a minimum of 150mm (6"") in diameter and shall be rated for 12 psig (83 kPa) with a minimum of 125°C (257°F) heat expansion. The pipe shall be rated for use in exposed conditions and shall be manufactured in accordance with the American Society for Testing and Materials (ASTM) standards.

2. The pipe shall be laid along the proposed alignment and shall be bedded on a compacted subgrade. The subgrade shall be free of any debris, sharp objects, or other materials that may damage the pipe. The pipe shall be laid in a straight line and shall be supported by a stable subbase to prevent movement or settlement.

3. The pipe shall be joined using approved coupling methods. The couplings shall be approved for use in exposed conditions and shall be rated for a minimum of 12 psig (83 kPa) with a minimum of 125°C (257°F) heat expansion.

4. The pipe shall be backfilled with compacted soil to the required depth. The backfill shall be placed in layers not exceeding 150mm (6") in thickness and shall be compacted to a minimum of 95% of the maximum dry density.

5. The pipe shall be protected from damage by external forces such as vehicles or equipment. The protection shall be in accordance with the American Society for Testing and Materials (ASTM) standards.

6. The pipe shall be inspected periodically to ensure that it is functioning properly and that it is not damaged. The inspections shall be performed at least once per year.

7. The pipe shall be labeled with the date of installation, the name of the contractor, and the location of the pond. The labels shall be located at regular intervals along the length of the pipe.

EARTH FILL

1. The earth fill shall be a mixture of soil and water, with a maximum water content of 6% by weight. The earth fill shall be compacted to a minimum of 95% of the maximum dry density.

2. The earth fill shall be placed in layers not exceeding 150mm (6") in thickness and shall be compacted to a minimum of 95% of the maximum dry density.

3. The earth fill shall be protected from damage by external forces such as vehicles or equipment. The protection shall be in accordance with the American Society for Testing and Materials (ASTM) standards.

4. The earth fill shall be inspected periodically to ensure that it is functioning properly and that it is not damaged. The inspections shall be performed at least once per year.

5. The earth fill shall be labeled with the date of installation, the name of the contractor, and the location of the pond. The labels shall be located at regular intervals along the length of the earth fill.

Care of Water during Construction

1. The water shall be protected from contamination during construction. The water shall be diverted to a sump or storm drain and shall be directed to a permanent discharge location.

2. The water shall be monitored for turbidity and pH levels. The turbidity and pH levels shall be measured at least once per day.

3. The water shall be tested for the presence of any contaminants. The tests shall be performed at least once per day.

4. The water shall be treated with a suitable chemical to control the growth of algae and other aquatic organisms. The chemical shall be applied in accordance with the manufacturer's instructions.

5. The water shall be monitored for oxygen levels. The oxygen levels shall be measured at least once per day.

6. The water shall be monitored for dissolved oxygen levels. The dissolved oxygen levels shall be measured at least once per day.

7. The water shall be monitored for temperature. The temperature shall be measured at least once per day.

8. The water shall be monitored for pH levels. The pH levels shall be measured at least once per day.

Structural Reinforcement

1. The structural reinforcement shall be placed in the pond and shall be secured to the earth fill. The reinforcement shall be a minimum of 100mm (4") in diameter and shall be rated for use in exposed conditions.

2. The structural reinforcement shall be placed in a straight line and shall be supported by a stable subbase to prevent movement or settlement.

3. The structural reinforcement shall be inspected periodically to ensure that it is functioning properly and that it is not damaged. The inspections shall be performed at least once per year.

4. The structural reinforcement shall be labeled with the date of installation, the name of the contractor, and the location of the pond. The labels shall be located at regular intervals along the length of the structural reinforcement.

OPERATION AND MAINTENANCE

1. The pond shall be operated and maintained in accordance with the American Society for Testing and Materials (ASTM) standards.

2. The pond shall be monitored for water levels. The water levels shall be measured at least once per day.

3. The pond shall be monitored for flow rates. The flow rates shall be measured at least once per day.

4. The pond shall be monitored for temperature. The temperature shall be measured at least once per day.

5. The pond shall be monitored for pH levels. The pH levels shall be measured at least once per day.

6. The pond shall be monitored for dissolved oxygen levels. The dissolved oxygen levels shall be measured at least once per day.

7. The pond shall be monitored for turbidity. The turbidity shall be measured at least once per day.

8. The pond shall be monitored for nitrogen levels. The nitrogen levels shall be measured at least once per day.

9. The pond shall be monitored for phosphorus levels. The phosphorus levels shall be measured at least once per day.

10. The pond shall be monitored for sulfate levels. The sulfate levels shall be measured at least once per day.

11. The pond shall be monitored for heavy metals. The heavy metals shall be measured at least once per day.

12. The pond shall be monitored for oil and grease. The oil and grease shall be measured at least once per day.

13. The pond shall be monitored for bacteria. The bacteria shall be measured at least once per day.

14. The pond shall be monitored for other contaminants. The other contaminants shall be measured at least once per day.

15. The pond shall be monitored for algae. The algae shall be measured at least once per day.

16. The pond shall be monitored for aquatic life. The aquatic life shall be measured at least once per day.

17. The pond shall be monitored for other aquatic organisms. The other aquatic organisms shall be measured at least once per day.

18. The pond shall be monitored for other biological organisms. The other biological organisms shall be measured at least once per day.

19. The pond shall be monitored for other environmental factors. The other environmental factors shall be measured at least once per day.

20. The pond shall be monitored for other operational factors. The other operational factors shall be measured at least once per day.

21. The pond shall be monitored for other maintenance factors. The other maintenance factors shall be measured at least once per day.

22. The pond shall be monitored for other safety factors. The other safety factors shall be measured at least once per day.

23. The pond shall be monitored for other security factors. The other security factors shall be measured at least once per day.

24. The pond shall be monitored for other legal factors. The other legal factors shall be measured at least once per day.

25. The pond shall be monitored for other economic factors. The other economic factors shall be measured at least once per day.

26. The pond shall be monitored for other social factors. The other social factors shall be measured at least once per day.

27. The pond shall be monitored for other environmental impacts. The other environmental impacts shall be measured at least once per day.

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STREET LIGHT CHART

TRAFFIC CONTROL SIGNS

GENERAL NOTES

ROAD CLASSIFICATION CHART

VICTORY MAP

SCALE 1" = 1200'

FIN First Election District
HOOWARD COUNTY, MARYLAND

ROCKBURN MANOR
LOTS 1 THRU 22

HOWARD COUNTY, MARYLAND
**STORM WATER MANAGEMENT POND CONSTRUCTION SPECIFICATIONS**

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### Soil Preparation

- **Plastic Pipe**
  - Pipe shall be placed to a depth of not less than 0.3 m (1 ft) below ground level to facilitate drainage.
  - Pipe shall be installed in a way that minimizes the risk of collapse or damage.

### Earth Fill

- **Placement and Compaction**
  - Earth fill shall be placed in proper layers of not less than 0.3 m (1 ft) and compacted to the desired density.
  - Compaction shall be done using appropriate equipment to ensure uniform density.

### Construction of Water during Construction

- **Grading and Drains**
  - Grading shall be done to ensure proper drainage and prevent water accumulation.
  - Drains shall be installed at the designated locations to facilitate water flow.

### Sediment Control

- **Construction Activities**
  - Construction activities shall be managed to minimize erosion and sedimentation.
  - Proper sediment control measures shall be implemented throughout the construction process.

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### Standards and Specifications for Topsoil

- Topsoil shall be replaced after excavation to maintain ecological balance.

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### Typical Drawing

- **Typical Section Infiltration Manual**
  - A typical section of the pond showing the infiltration manual is provided for reference.

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### Sequence of Construction

1. **Excavation**
2. **Placing and Compacting Earth Fill**
3. **Placing and Compacting Plastic Pipe**
4. **Grading and Drains**
5. **Construction Activities (Sediment Control)**

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### Developer's Certificate

- **Rockburn Manor**
  - Lots 1 thru 22
  - Tax Parcel No.: 00-00-00
  - First Election Project: Howard County, Maryland, Site 000
  - Owner: [Name] (if applicable)
  - Developer: [Name]

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**F-00-06**