

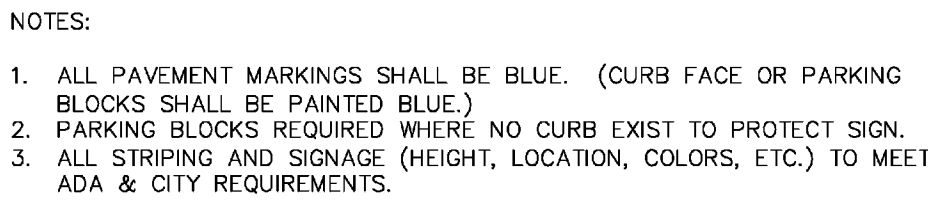
3. It is not the intent of these construction notes to cover all details and/or the specification requirements for the project.
4. The CONTRACTOR shall provide reasonable access to residential, commercial and public properties in the project area.
5. The CONTRACTOR shall be responsible for furnishing all labor, materials, equipment and incidental items needed to erect and maintain construction signing, barricades, traffic control devices and other related items for the project area, during the construction period. Maintenance and protection of traffic must comply with the MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. This work is to be considered an incidental item and the cost of this item is to be included in other pay items.
6. All existing utility locations shown are approximate based off of information provided by the utility owner's. Prior to installation of any portion of the water, sewer or storm drain infrastructure shown in these plans the CONTRACTOR is to verify the locations (horizontal and vertical) of all existing utilities & utility infrastructure in the project area prior to construction. Should there be any conflicts or discrepancies the CONTRACTOR is to notify ENGINEER in writing.
7. The CONTRACTOR shall bear full responsibility for the protection of all private and public utilities even though they may not be shown on the plans. Any utility that is damaged during construction shall be repaired or replaced to the satisfaction of the utility owner by the CONTRACTOR. This includes all service laterals of any kind.
8. The CONTRACTOR will not be responsible for demolishing or removing any existing above or below ground telephone, power, or gas lines but shall be responsible for coordinating his work with all local utility companies.
9. The CONTRACTOR shall verify all shown dimensions and elevations (existing and proposed) in the field and shall satisfy himself as to the accuracy between work set forth on these plans and the work required in the field. Any discrepancies shall be brought to the attention of the ENGINEER prior to construction.
10. The CONTRACTOR is required by law to notify Mississippi One Call @ 601-362-4374 at least 48 hours prior to construction to locate all existing utilities on site.
11. The CONTRACTOR shall be responsible for notifying all utility companies at a minimum of 48 hours prior to commencing work in the project area. Likewise, the CONTRACTOR is responsible for coordinating his work and that of the involved utilities in the project area.
12. All testing required by the project specifications or Utility Ordinances shall be done by an approved testing laboratory at the expense of the CONTRACTOR.
13. The CONTRACTOR shall restore all disturbed areas to match pre-construction condition or better after completion of the project.
14. The CONTRACTOR is to provide the ENGINEER a Certification that the project was completed according to the Project Plans and Specifications.
15. Roads to be kept clean of mud and debris at all times.
16. The CONTRACTOR shall carefully remove, store and reinstall all City/County/State owned signs whose removal is required by his construction work in the project area. It shall be the CONTRACTOR's responsibility to arrange for the appropriate agency to inspect all signs scheduled for removal prior to their removal. Once said signs have been removed, it will be assumed that they were in good condition at the time of removal. Any signs damaged or lost by the CONTRACTOR shall be replaced at no cost to the appropriate agency.
17. Elevations are based on M.S.L. Datum.
18. The CONTRACTOR shall procure all required permits and licenses; pay all fees, charges and taxes (including sales and use taxes); give all required notices; maintain an orderly and safe flow of traffic; maintain proper stormwater drainage at all locations; insure all existing utilities; transport all equipment and materials as required by any agency having jurisdiction over any road use thereof; transport, handle and install all materials in accordance with their respective manufacturer's recommendations and project specifications; properly backfill all trenches and excavations; maintain a clean and orderly work site; promptly remove all equipment, debris and excess soils and/or materials on completion of the work; and restore to substantially the same or better conditions all disturbed pavements and ground surfaces.
19. No activity required for the accomplishment of the Work is to be performed when soil conditions are not conducive therefor. Drainage shall be maintained at all times. CONTRACTOR shall conduct its operations and activities in such a manner as to minimize the erosion of soils and the deposition of sediments into existing drainage courses downstream of project work areas or onto adjacent properties.
20. The CONTRACTOR shall be responsible for removing any and all existing structures necessary for completion of the work described in these plans and as otherwise noted.
21. These construction plans were prepared to the best of my knowledge, to comply with the requirements of the CITY OF PEARL development regulations.

1. Technical specification for materials and construction methods for this project shall conform to the latest edition of MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. Earth excavation shall include clearing, stripping, and the stockpiling of topsoil, removing unsuitable materials, the construction of embankments, non-structural fills, final shaping and trimming to the lines, grades and cross sections shown on the plans. All excessible or excessible material shall be disposed of as directed by the ENGINEER.
3. As an initial step of site preparation, trees and vegetation within the construction limits should be removed. Tree and vegetation removal (clearing and grubbing) will include stumps and root systems. Holes created by tree and stump removal should be backfilled with compacted select fill soils.
4. After clearing and grubbing, stripping (6" minimum depth) should be performed to a sufficient depth within construction areas to remove organic-laden surficial soils, vegetation, debris, brush and roots (topsoil). Topsoil excavated shall be stockpiled on the site in areas designated by the ENGINEER until such time that this topsoil can be used for final grading. This is not a pay item, but shall be an absorbed cost.
5. Once clearing, grubbing, and stripping has been completed the CONTRACTOR shall excavate areas that are to be cut to reach plan grade. CONTRACTOR shall then notify the ENGINEER for a field inspection of the subgrade prior to placement of any select fill. CONTRACTOR shall have equipment available to perform a proof roll or for further excavation should the ENGINEER deem necessary. Fine-grained soils exposed after stripping, excavation and undercutting are susceptible to pumping and/or becoming unstable and rutting excessively under wet conditions. The construction techniques, types of equipment utilized and site drainage provided during construction will have a great effect on the performance of the fine-grained soils throughout the project. The routing of rubber-tired equipment should be controlled to minimize traffic over the site. All traffic should be discouraged during periods of inclement weather.
6. Undercutting and backfilling will be required to remove expansive clays (CH) if present and create the recommended soil buffer at building structure locations and at all pavement and sidewalk locations.
7. Import select fill material shall consist of select, non-organic and debris-free silty clays (CL) having a plasticity index (PI) within the range of 10 to 24 and a liquid limit less than 45. To be classified as silty clays (CL) the fill materials must have more than 70% fines passing the number 200 sieve.
8. Soil buffer for the buildings to be a minimum of 7' thick and extend laterally not less than 7' beyond the structure limits.
9. Soil buffer for pavement and sidewalk is to be 3' thick and extend laterally not less than 3' beyond pavement, sidewalk edges.
10. Fill soils should be compacted from lifts not exceeding 9" in loose thickness to not less than 95% of standard Proctor maximum dry density (ASTM D 698) at moisture contents within 3 percentage points of the optimum water content. Stability must be evident during compaction of each lift before any subsequent lifts of fill material are added.
11. Field moisture/density tests shall be performed frequently in the scarified and compacted on-site soils and in each compacted lift of fill material. Tests to be performed a minimum of one test per lift for each 2,000 s.f. of surface area for the building pad construction and one test per lift for each 5,000 s.f. of surface area for the parking lot and driveways. Test results to be faxed to Benchmark Engineering & Surveying, LLC at 601-591-0711. A proof roll of the sub-grade for the curb and parking lot is also required prior to placement of curb & gutter and asphalt base. CONTRACTOR shall notify ENGINEER at a minimum of 48 hours prior.
12. The grading and construction of the site improvements shall not cause the ponding of storm water. All areas adjacent to these improvements shall be graded to allow positive drainage. Positive drainage shall be maintained at all times.
13. The CONTRACTOR shall take special care in grading near trees, bushes and shrubs which are not to be removed so as not to cause injury to roots or trunks.
14. The CONTRACTOR shall use care in grading or excavation near any and all existing items which are not indicated to be removed. Any damage done to these existing items by the CONTRACTOR'S operations shall be repaired at the CONTRACTOR'S expense.
15. Proposed elevations indicate finished conditions. For rough grading elevations allow for thickness of proposed items (roads, walks, drives, etc.) or topsoil as shown.
16. Street paving and curbs to remain shall be protected from damage, and if damaged, shall be replaced promptly.
17. Recommended soil buffers for the pavement can consist of on-site natural silty clays (CL) in combination with select materials placed above existing ground elevations or select backfill and fill materials placed after undercutting to remove expansive clays (CH).

1. All materials and construction shall be in accordance with these plans and project specifications.
2. The CONTRACTOR shall provide all the materials and appurtenances necessary for the complete installation of water and sewer utilities.
3. The CONTRACTOR shall make all ties to existing utilities and coordinate them with the CITY OF PEARL Public Works Department.
4. All manhole valve boxes, and fire hydrants shall be adjusted to proper line and finished grade by the CONTRACTOR after placing of pavement and before final acceptance.
5. Trenching and embedment work shall conform to all requirements and shall follow the typical cross-section detail for trenching. Unless specified otherwise, backfill material shall be compacted to 95% density of Standard Proctor in accordance with ASTM D-698. All backfill material shall be compacted in 6" layers.
6. The end of water and sewer lines shall be tightly capped or plugged and marked until such time as service connections are made or lines are extended.
7. All water lines and sanitary sewer lines shall be installed with a minimum of three feet (3') of cover over the top of the pipe at finished grade or as shown otherwise. Where installed in a roadway section the minimum cover over the top of the pipe shall be four feet (4'). Backfill shall be placed in 6" lifts and compacted to 96% Standard Proctor density.
8. Ten feet (10') of horizontal clearance is required between all water and sewer lines. At locations where the water and sewer lines must cross each other there shall be a minimum clearance of 18" with the water passing over the sewer. If these separations cannot be met, the sewer line shall be constructed to the same specifications as the water line and be water tight until such a point where minimum separation can be met. Where gravity flow sewers cross above water lines, the sewer pipe for a distance of ten (10') feet, each side of the crossing, either shall be ductile iron pressure pipe without any joint closer than three (3') feet to the crossing, or shall be fully encased in concrete.
9. The utility CONTRACTOR shall be responsible for testing the water and sewer systems in accordance with the CITY OF PEARL REGULATIONS and shall notify the ENGINEER and the CITY OF PEARL at least 48 hours in advance of performing any tests. Additional tests on water and sewer lines will be as required by the CITY OF PEARL. A copy of all test results shall be faxed to BENCHMARK ENGINEERING & SURVEYING, LLC @ 601-591-0711.
10. The lengths of the sanitary sewer lines are measured from center of manhole to center of manhole.
11. Fittings for all applications of water and sewer lines shall be an absorbed cost.

1. Technical specifications for all materials and construction methods for the storm drain construction shall be in accordance with the latest edition of MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION or the manufacturer's recommendation.
2. Joint between the storm drain and jointer shall be constructed in such a manner that no spill through of backfill will occur.
3. Any additional excavation required for installation of Bedding Material for storm drain pipe shall be included in the contract price per linear foot of storm drainage pipe.
4. At the expense of the CONTRACTOR, the CONTRACTOR shall maintain existing drainage patterns and construct temporary structures or embankments as may be required to maintain the existing drainage system and the capacity of the work area and any all items constructed during the progress of the work that are not necessary for the final drainage system are to be removed and the area restored to its original condition.

1. Erosion and sediment control materials and installation shall be in accordance with the latest edition of MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. The CONTRACTOR shall take all necessary measures to control erosion and water pollution through the construction period. All temporary erosion control measures shall be in place before earth moving operations begin. Seeding and mulching shall be used where necessary to accommodate roadway slopes. Embankments and excavated areas shall be promptly stabilized to minimize erosion. Baled straw erosion checks and silt fencing shall be used along the toe of fill slopes, in ditches, and in other areas where erosion is a problem and silt laden runoff may enter a stream or adjacent property.
3. Any stockpiled soil or fill material shall be located and treated in a manner to prevent silt from entering streams. No excavated material shall be discharged into ditches. The CONTRACTOR shall dispose of all excavated material in a location approved by the ENGINEER.
4. Erosion and sediment control measures shall be continually maintained. The CONTRACTOR shall keep streets and sidewalks adjacent to the limits of construction free of mud and debris.
5. CONTRACTOR shall comply with the erosion control requirements of the CITY OF PEARL and the requirements of the Mississippi Department of Environmental Quality.
6. CONTRACTOR to utilize Best Management Practices for erosion and sediment control.



1. CURB AND GUTTER SHALL BE 3000 PSI MINIMUM CONCRETE.
2. PROVIDE EXPANSION JOINTS WITH 3/4" EXPANSION MATERIAL AT INTERVALS NOT TO EXCEED THIRTY (30') FEET.
3. PROVIDE CONTRACTION JOINTS IN THE CURB AND GUTTER AT INTERVALS NOT TO EXCEED TEN (10') FEET.
4. GUTTER SECTION TO MATCH CROSS SLOPE OF ADJACENT ASPHALT.

100.10

99.60

100.00

99.50

12:1 MAX.

2% SLOPE

TRUNCATED DOWNS REQ'D.

12:1 MAX.

100.10

100.00

99.50

6'-0" MIN. CURB TRANS.

4' MIN.

1/2" EXPANSION JOINT REQ'D. ALONG CURB & GUTTER

1/2" EXPANSION JOINT

1/2" MAXIMUM LIP

6'-0" MIN. CURB TRANS.

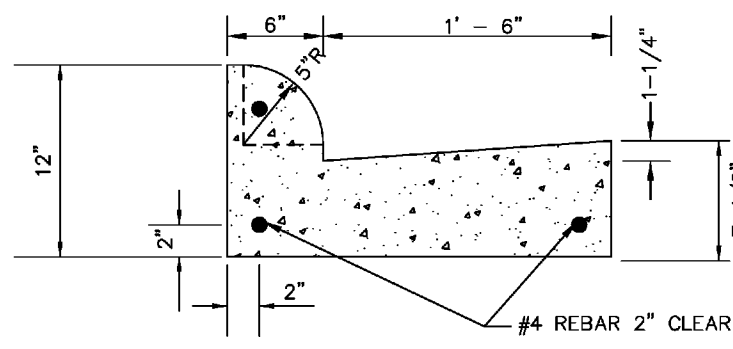
STP CURB SECTION

RAMP NOTES:

1. LENGTH OF RAMPS WILL VARY. GUTTER OR THE SURROUNDING AREA SHALL NOT EXCEED 12:1.
2. WIDTH OF RAMPS SHALL BE 6'-0" MIN.

TRUNCATED DOME NOTES:

1. TRUNCATED DOME MATS TO BE CAST IN PLACE AND INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND MEET ADA REQUIREMENTS.
2. SIZES RANGE PER MANUFACTURER, TYPICAL SIZES REQUIRED FOR THIS PROJECT ARE 2'x5', 2'x6' AND 2'x8'. MINIMUM ALLOWABLE DEPTH IS 2".
3. COLOR OF MAT TO BE COORDINATED WITH ARCHITECT.
4. IN AN INSTANCE WHERE ONE MAT WILL NOT SPAN WIDTH OF TRAVEL WAY, TWO MATS OF SAME LENGTH SHALL BE INSTALLED.



1. CURB AND GUTTER SHALL BE 3000 PSI MINIMUM CONCRETE.
2. PROVIDE EXPANSION JOINTS WITH 3/4" EXPANSION MATERIAL AT INTERVALS NOT TO EXCEED THIRTY (30') FEET.
3. PROVIDE CONTRACTION JOINTS IN THE CURB AND GUTTER AT INTERVALS NOT TO EXCEED TEN (10') FEET.
4. GUTTER SECTION TO MATCH CROSS SLOPE OF ADJACENT ASPHALT.

The diagram illustrates a cross-section of a ramp curb. A concrete curb is shown with a top surface labeled "STRIPED CURB SECTION". The curb has a "6'-0\" MIN. CURB TRANS." dimension indicated by a horizontal arrow. The curb is supported by a base with a "1/2\" MAXIMUM LIP" dimension indicated by a vertical arrow. The ramp surface is shown sloping down from the curb.

RAMP NOTES:

1. LENGTH OF RAMPS WILL VARY DEPENDING ON THE CURB AND GUTTER OR THE SURROUNDING GRADES HOWEVER SLOPES SHALL NOT TO EXCEED 12:1.
2. WIDTH OF RAMPS SHALL BE 4' MINIMUM BUT IN GENERAL SHOULD MATCH THE WIDTH OF THE STRIPED HANDICAPPED WALKWAY.
3. ELEVATIONS SHOWN ARE ASSUMED UNLESS OTHERWISE NOTED.
4. ELEVATIONS WILL VARY DEPENDING ON LENGTH OF RAMP AND THE SLOPE OF THE ADJACENT ROADWAY.
5. CROSS SLOPES OF SIDEWALK TO BE MIN. 2% TO PARKING LOT.
6. CONCRETE FOR RAMPS SHALL BE AS SPECIFIED FOR SIDEWALK.

3,000 psi @ 28 DA  
CONCRETE

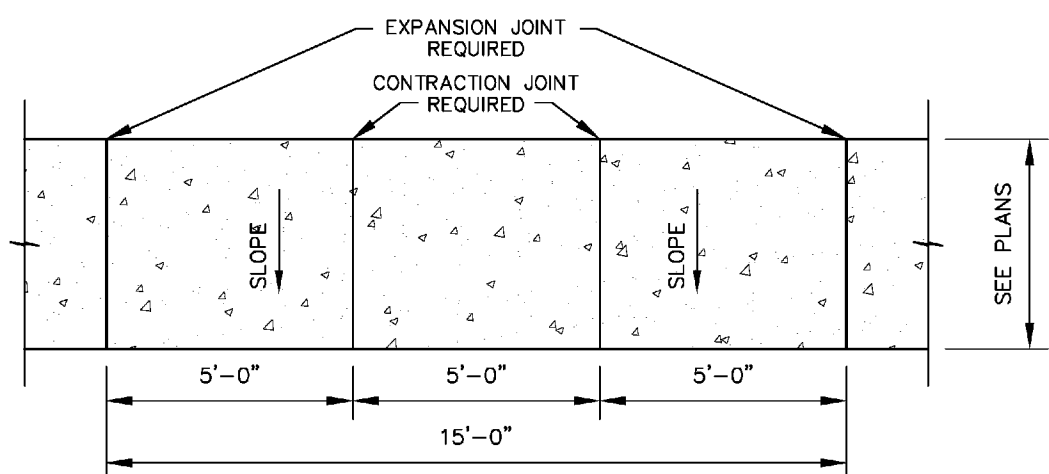
1/4" GROOVE


6" x 6" x w2.9 x w2.9  
WELDED WIRE FABRIC

GRADE AND COMPACT EXISTING GROUND

**SIDEWALK CONTRACTION JOINT DETAIL**

N.T.S.



<p><b>A NEW SITE FOR:</b></p> <p><b>COURTYARD BY MARRIOTT</b></p> <p>RIVERWIND DRIVE CITY LIMITS OF PEARL, MS</p>	<p><b>DATE:</b> 09/08/11</p> <p><b>DRAWN:</b> GAB</p> <p><b>ALON:</b></p> <p><b>REVISED:</b></p>	<p><b>CONTENTS:</b></p> <p><b>GENERAL CONSTRUCTION NOTES &amp; MISCELLANEOUS DETAILS</b></p>
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 40%;"> <p><b>BENCHMARK</b></p> <p><b>Engineering &amp; Surveying, LLC</b></p> <p>101 Highpointe Court, Suite B, Brandon, Mississippi 39042</p> <p>Office: 601-591-1077 Fax: 601-591-0711</p> <p>E-mail: benchmarkms@bellsouth.net</p> </div> <div style="width: 10%; text-align: center;">  </div> <div style="width: 50%; font-size: small; padding-top: 20px;"> <p>THE DRAWING AND SPECIFICATIONS ARE THE PROPERTY OF BENCHMARK ENGINEERING, LLC. NO PART OF THIS DRAWING OR SPECIFICATIONS ARE TO BE COPIED, REPRODUCED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF BENCHMARK ENGINEERING, LLC. ANY VIOLATION OF THESE TERMS SHALL BE CONSIDERED A VIOLATION OF THE FEDERAL COPYRIGHT ACT OF 1976 AND WILL BE PROSECUTED TO THE FULL EXTENT OF THE LAW. BENCHMARK ENGINEERING, LLC ASSUMES NO LIABILITY FOR ANY DAMAGE OR LOSS OF ANY KIND, INCLUDING CONSEQUENTIAL DAMAGES, ARISING OUT OF THE USE OF THIS DRAWING OR SPECIFICATIONS. THE USER OF THIS DRAWING OR SPECIFICATIONS SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INSURANCE COVERAGE. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PROFESSIONAL SERVICES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY MATERIALS. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY EQUIPMENT. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY SUPPLIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY SERVICES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE APPROPRIATE AGENCIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INSURANCE COVERAGE. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PROFESSIONAL SERVICES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY MATERIALS. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY EQUIPMENT. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY SUPPLIES. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY SERVICES.</p> </div> </div>		

A circular professional engineer seal for Gregory A. Bonds, State of Mississippi. The seal contains the text: GREGORY ALLEN BONDS, REGISTERED PROFESSIONAL ENGINEER, 16335, 09/08/11, and STATE OF MISSISSIPPI. The name "Gregory A. Bonds" is written in cursive across the seal.

SHEET NUMBER  
**C1.1**

PROJECT NUMBER  
**B-2846**