



DEPARTMENT OF PURCHASING & CONTRACT COMPLIANCE

**Winner 2000- 2007 Achievement of Excellence in Procurement Award
National Purchasing Institute**

Jerome Noble, Director



February 13, 2008

Re: Bid # 08ITB59461K-JD W037 Hackett Road Elevated Water Tanks

Dear Bidders:

Attached is one (1) copy of Addendum 1, hereby made a part of the above referenced Invitation to Bid # 08ITB59461K-JD W037 Hackett Road Elevated Water Tanks.

Except as provided herein, all terms and conditions in the #08ITB59461K-JD – W307 Hackett Road Elevated Water Tanks referenced above remain unchanged and in full force and effect.

Sincerely,

Joyce Daniel

Joyce Daniel,
Assistant Purchasing Agent

This Addendum forms a part of the contract documents and **modifies** the original documents as noted below:

Modifications to the Specifications:

- Item 1: 00490 Insurance Information Requirements, page 2, Article 9, Under Sub-limits, delete "TBD" after Delay in Completion / Soft Cost and replace with "\$500 per day"
- Item 2: Section 00500 Contract, page 1 of 3, insert the following paragraph before the last paragraph on the page:

"For each calendar day that any work remains uncompleted after the time allowed for completion of the work, the Contractor shall pay the County the sum of \$500.00, not as a penalty but as liquidated damages, which liquidated damages the County may deduct from any money due the contractor. At the County's convenience and not to it prejudice the County may provide written notice of the commencement of the assessment of liquidated damages."
- Item 3: Section 02200 Earthwork, page 8, Article 3.03, paragraph B, delete subparagraph d in its entirety (beginning with "d. Rock excavation will be paid for...").
- Item 4: After Section 02510, add new Section 02511, Pervious Asphalt Paving included with this addendum.
- Item 5: Section 13210 Composite Elevated Water Tank, page 14, Article 2.05, paragraph L, after subparagraph 6e add new subparagraphs 7 & 8 as follows:

7. Altitude Valve:

- a. The altitude control valve shall be the single acting piston type, functioning to close off at maximum water level in the tank and opening to replenish the tank supply when the water level drops approximately 6 to 12-inches.
- b. The valve shall be of semi-steel body and cover, with non-corrosive trim construction throughout. The valve shall be flanged, faced, and drilled in accordance with the most recently published ANSI B16.1 Standards.
- c. The design of the valve shall be such that there will be no metal-to-metal contact within the main valve, and all wear therein will be absorbed by renewable leather or rubber caps and seat ring. The piston shall be of the differential design providing for approximately twice the area above the piston as below it. The movement of the piston shall be regulated by the action of a 3-way type pilot valve. The pilot valve shall be operated by solenoids controlled by 4-20 mA signal from a pressure transmitter supplied by others. A manual system to bypass the solenoids shall also be provided. The 3-way pilot valve shall be provided with a strainer to prevent passage of particles of foreign matter. The valve must be cushioned by air and water in closing to prevent hammer and shock.

The water passage shall be provided with "V" shaped ports to effect water cushioning when the valve closes. A regulating device shall be provided to adjust the speed of valve closing. An indicator rod directly attached to the piston shall show the position of the piston at all times. There shall be no obstruction of water flow through the seat of the main valve.

- d. The body shall be of the globe design provided with one flanged cover opening at the top from which all inside parts are accessible. There shall not be permitted any guides, rods, springs or cushion cylinders within the confines of the water passageway which could cause turbulence or increase pressure drop.
- e. Altitude valve shall be manufactured by G-A Industries or Ross.
- f. Sequence of Operation:
 - 1. A single acting attitude valve shall open based upon a set minimum level to allow tanks to fill. The valve shall close at a set maximum tank level to prevent overflowing the tanks.
 - 2. A 4-20 mA pressure transmitter signal provided by others shall control operation of the altitude valve. As a secondary control, the attitude valve shall use a hydraulic line to mechanically control operation as shown on the Drawings.
 - 3. The open or closed position of the altitude valve shall also be monitored through limit switches and transmitted to the central control location.

8. Check Valve:

- a. Check valves shall be hinged disc type with cast iron body and bronze or bronze-fitted disc. Valves shall be designed for 150 psi and shall not slam shut. Valves shall be equipped with a ½-inch stop cock at the high point of the valve for bleeding air from the line.
- b. Valves shall be outside weight and lever cushioned type. The cushion chamber shall be attached to the side of the valve body externally and constructed with a piston operating in a chamber that will effectively prevent hammering action for the application specified. The cushioning shall be by air and the cushion chamber shall be so arranged that the closing speed will be adjustable to meet the service requirements.
- c. Valves shall be of the globe design with ANSI 125 pound flanges.
- d. Valves shall be a G.A. Industries (Fig. 250-D) or APCO Valve and Primer Corporation (Series 6000).

Item 6. Section 13210 Composite Elevated Water Tank, page 18 of 26, Article 2.05, delete paragraph A in its entirety and replace with the following:

"Cathodic protection shall be provided by a specialty contractor approved by the Owner as provided herein."

Modifications to the Drawings

- Item 1: Sheet C3.0, center of page along the access road and at Hackett Road, delete the text “(not in contract)” in two places.
- Item 2: Sheet C3.0, replace a portion of the site plan with the revised site plan portion on the attached sketch labeled “STAKING PLAN C3.0” (revises location of tanks to 150’ c. to c. spacing, deletes one instance of “(not in contract)” noted in Item 1 above, and revises west property line length to 428.11 feet.).
- Item 3: Sheet C4.0, replace the portion of the site plan with the revised site plan on the attached sketch labeled “EROSION CONTROL PLAN C4.0” (revises location of tanks to 150’ c. to c. spacing).
- Item 4: Sheet C5.0, replace the portion of the site plan with the revised site plan on the attached sketch labeled “GRADING & DRAINAGE PLAN C5.0” (revises location of tanks to 150’ c. to c. spacing).
- Item 5: Sheet C6.0, replace the portion of the site plan with the revised site plan on the attached sketch labeled “UTILITY PLAN C6.0” (revises location of tanks to 150’ c. to c. spacing).
- Item 6: Sheet C6.0, Piping Layout Schematic, for the north tank change the size of the butterfly valve shown for the inlet-outlet pipe from “16” BV” to “20” BV”
- Item 7: Sheet C7.0, Construction Details, add the attached sketch labeled “Typical Pervious Asphalt Cross Section” showing pervious asphalt paving detail.

Questions and Responses:

- Question 1 Who will run monthly project meetings called for Section 01200?
Response Per Section 01200, meeting is run by Engineer. See Section 00700-3 for definition of “Construction Manager or Engineer”.
- Question 2 Does this project require a full time on-site superintendent?
Response See Section 00700, Article 66 (page 18 of 28)
- Question 3 What field offices are required?
Response See Section 01590 Field offices.
- Question 4 Who pays fee for permits?
Response Per Section 01010 article G1, County will apply and pay for Land Disturbance permit. Contractor shall apply and pay for all other permits, including building permit. County will also apply and pay for GaDOT permit.

- Question 5 I have not been able to determine what the liquidated damages are for this project should work not be finished within the specified completion time. Please clarify.
- Response** See Modifications to the Specifications, Items 1 & 2.
- Question 6 Pavement is shown as "pervious" on Drawing C3.0, as "pervious concrete" on Drawings C6.0 and C7.0 but there is no specification for asphalt. Please clarify.
- Response** See Modifications to the Specifications, Item 4 and Modifications to the Drawings, Item 7.
- Question 7 Where is the pipe gate as detailed on Drawing C7.0 supposed to be installed?
- Response** Gate location is shown on Sheet C3.0 at the north end of the access road outside the chain link fence gate and is designated with a note and leader as an "8" inside a square.
- Question 8 Section 02200, Earthwork, page 8, 3.03 B (d) mentions that rock will be paid as an extra based upon "unit price bid for rock excavation" but the Bid Form does not list that as a bid item.
- Response** See Modifications to the Specifications, Item 3.
- Question 9 Does the Landscaping Allowance include the grassing?
- Response** No. See Section 01025 Article D, paragraph 2 and Sheet C4.0
- Question 10 On Drawing C8.0 at North Tank, should the valve shown as 16" BV should be 20"?
- Response** Yes. See Modifications to the Drawings, Item 6.
- Question 11 On Drawing C3.0 et.al. site drawings the west property line is shown as being 489.17'. This seems to be in error; should be about 427' (?)
- Response** The correct dimension is 428.11 feet, see Modifications to the Drawings, Item 2.
- Question 12 I can't find any specifications for the altitude valve and check valve.
- Response** See Modifications to the Specifications, Item 5.
- Question 13 Drawing C8.0 shows 150' c-c tanks. Site plans scale (adjusting for my reduced-size plans) to about 220' c-c. I have to assume C8.0 is correct since by convention, a dimensioned drawing rules over a scaled dimension, but the 150' may be wrong. Please confirm because this will affect pipe lengths and paving.
- Response** 150 feet is the correct dimension, see Modifications to the Drawings, Items 2, 3, 4, & 5.
- Question 14 Drawing C3.0 shows the access road to be by Owner. Does this include grading and erosion control as well as paving? What will we be provided at the time of our work? Who is responsible to maintain (stone, etc.)?
- Response** No work is provided by Owner; note was intended to refer to Standard Specifications and Details, see Modifications to the Drawings, Item 1.

- Question 15 Will Fulton County employ a third party paint inspection company to inspect the tank painting work?
Response Yes, cost will be borne by County or paid under the testing allowance.
- Question 16 Work days - are we allowed to work on weekends to make up time lost due to inclement weather conditions experienced during the week?
Response See Section 00700, Article 21 and Section 01006, Article 1.01 A
- Question 17 Are the total dry film thicknesses listed in the paint specifications correct?
Response Yes, See Section 09900 Painting Article 3.08 for minimum total system dry film thickness.
- Question 18 Page 18 of Spec Section 13210, paragraph 2.10A states that cathodic protection system will be "paid for under the cash allowance established in the Bid documents". I do not see a cash allowance item on the bid form for cathodic protection. Please clarify.
Response See Modifications to the Specifications, Item 6. Cathodic Protection shall be included in the lump sum bid for the composite elevated tanks.

ACKNOWLEDGEMENT OF ADDENDUM NO. 1

The undersigned bidder acknowledges receipt of this addendum by returning one (1) copy of this form with the proposal package to the Purchasing Department, Fulton County Public Safety Building, 130 Peachtree Street, Suite 1168, Atlanta, Georgia 30335 by the Bid due date and time on **Monday, February 25, 2008 at 11:00 A.M.**

This is to acknowledge receipt of Addendum No. 1, _____ day of _____, 2008.

Legal Name of Bidder

Signature of Authorized Representative

Title

Part 1 General**1.01 Scope**

- A. Work Included:
 - 1. Access driveway
 - 2. Tank site paving

1.02 Submittals

- A. Certificates: Provide certificates stating that materials supplied comply with Specifications. Certificates shall be signed by asphalt producer and Contractor.
- B. Mix Design: Submit mix design for each course to Architect for acceptance.
- C. Asphalt spreader equipment shall be approved by the Architect. Submit design and operational data.

1.03 Standards

- A. Georgia Department of Transportation Standard Specifications: 1993 Edition, English Version, 1997 Supplemental.

1.04 Conditions

- A. Weather Limitations:
 - 1. Apply bituminous prime and tack coats only when the ambient temperature in the shade has been at least 50° F for 12 hours immediately prior to application.
 - 2. Do not conduct paving operations when surface is wet or contains excess of moisture which would prevent uniform distribution and required penetration.
 - 3. Construct asphaltic courses only when atmospheric temperature is above 40° F, when the underlying base is dry and when weather is not rainy.
 - 4. Place base course when air temperature is above 35° F and rising.
- B. Grade Control: Establish and maintain the required lines and grades for each course during construction operations.

1.05 Testing

- A. Testing of asphalt pavement and base will be performed by an independent testing laboratory selected and paid by the Owner.
- B. Prior to field installation, the Contractor shall coordinate with the Owner's testing laboratory, to allow testing agent to observe/perform the following tests of the hot mix at the asphalt plant including evaluation of 75 mm (6 in.) diameter Marshall specimens. The open-graded AC specimens are to be compacted with 25 blows

from a 4.5 kg (10 lb.) Marshall hand hammer on one side of each specimen. The temperature of the laboratory produced asphalt mixture during compaction shall be maintained to around 121° C (250° F). After the laboratory specimens have been compacted and cooled, they shall be weighed in air and water to determine bulk density and void contents. The optimum asphalt content is typically selected where the resulting void content is nearest to 30 percent. Consequently, the mix design may be altered to obtain the target density.

- C. Testing agency shall test in-place courses for compliance with specified density, asphaltic content, thickness and surface smoothness requirements. Testing agency shall take two 4-inch diameter cores per 1,000 sq. yds. of paved surface at locations selected by Owner for density and thickness tests. Repair holes resulting from coring to match existing paving.
- D. Density: compare density of in-place material against laboratory specimen of same mixture, subjected to 50 blows of a Standard Marshall hammer on each side of specimen. Minimum acceptable density of in-place material shall be 97% of recorded laboratory specimen density.
- E. Allowable Variation in Thickness:
 - 1. Base Course: +/- 2 inches.
 - 2. Surface Course: +/- 1/8 inch.
- F. Surface Smoothness: Test finished surface of each asphalt course for smoothness using a 10-foot straightedge. Intervals of tests shall be as directed by Owner. Surfaces will not be acceptable if exceeding the following:
 - 1. Base Course: 2-inches in 10 feet.
 - 2. Surface Course: 1/8 inch in 10 feet.
- G. Contractor's duties relative to testing include:
 - 1. Notifying laboratory of conditions requiring testing.
 - 2. Coordinating with laboratory for field testing.
 - 3. Paying costs for additional testing performed beyond scope of that required and for retesting where initial tests reveal nonconformance with specified requirements.

Part 2 Products

2.01 Materials

- A. Geotextile Filter Fabric: Fabric between pavement and subgrade may be the following or equal. Fabric shall have minimum mullen burst strength of 170 pounds per ASTM D-3786 and minimum puncture resistance of 45 pounds per ASTM D-4833. Confirm that fabric will not impede the free flow of water to the subgrade.
 - 1. Synthetic Industries, Nonwoven Geotextile Style 1001, 800-621-0444.

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2. Hoeschst Celanese, Trevira Spunbond, 011/120, 800-845-7597.
 3. Amoco CEF Style 45553.
- B. Aggregate Base Course: Pervious Aggregate Base Course (for use at all pervious asphalt pavement): A base course shall be placed to the limits and dimensions as shown on the Drawings. The stone shall be furnished in accordance with the Drawings.
1. Note that the aggregate base course (GDOT Type 57 crushed stone) is to be choked off after placement with sufficient GDOT 810 material to provide a cohesive surface course suitable for traction of the track-mounted paver equipment.
- C. Pervious Asphalt Base Course: The base course for pervious pavement, including paint or tack coat when required by the Owner, shall conform to the Requirements of the Georgia Department of Transportation Specifications for Asphaltic Concrete, Type "C", and produced in a Pug Mill Rotary Drum type mixer with minimum capacity of not less than 50 tons per hour, per the Requirements of Section 828.06 of the Georgia Department of Transportation Specifications. Confirm the AC grade to be used with the Architect given consideration of the following:
1. The asphalt cement is required to be a paving grade material, however, with an original penetration of 40 to 100. Asphalt cements within this penetration range are typically categorized by American Society for Testing and Materials (ASTM) D 3381 as an AC10, AC20, or AC30 viscosity grade (ASTM 1995a). These asphalt cement grades are generally considered to be of medium viscosity. Lower viscosity asphalt cements could drain off of the large aggregates during mixing and transporting, which would reduce the permeability of the open-graded layer and hinder grout penetration. Asphalt cements stiffer (or higher viscosity grade) than the specific range might not allow for sufficient coating of the aggregates with the typical low asphalt contents used.
- D. Pervious Asphalt Wearing Course: The wearing course for pervious pavement, including paint or tack coat when required by the Owner, shall conform to the requirements of the Georgia Department of Transportation Specifications for Asphaltic Concrete, Type "D", and produced in a Pug Mill Rotary Drum type mixer with minimum capacity of not less than 50 tons per hour, per the requirements of Section 828.06 of the Georgia Department of Transportation Specifications. Confirm the AC grade to be used with the Architect given consideration of the following:
1. The asphalt cement is required to be a paving grade material, however, with an original penetration of 40 to 100. Asphalt cements within this penetration range are typically categorized by American Society for Testing and Materials (ASTM) D 3381 as an AC10, AC20, or AC30 viscosity grade (ASTM 1995a). These asphalt cement grades are generally considered to be of medium viscosity. Lower viscosity asphalt cements could drain off of the large aggregates during mixing and transporting, which would reduce the permeability of the open-graded layer and hinder grout penetration. Asphalt cements stiffer (or higher viscosity grade) than the specific range might not allow for sufficient coating of the aggregates with the typical low

asphalt contents used.

Part 3 Execution

3.01 Spreading and Finishing

- A. The pavements shall be of the type, dimensions, and components shown on the Drawings.
- B. Construction shall be in accordance with the requirements of the Georgia State Highway Department Specifications for Hot Mix Asphaltic Concrete Construction.
- C. Unless otherwise specified or permitted, asphaltic concrete shall be delivered and spread in ample time to secure thorough compaction during daylight hours. Its temperature at the time of depositing in the paver hopper shall be not more than 25 degrees F less than the temperature at which it is discharged from the mixer. The mixture shall be laid upon an approved surface to which the appropriate tack coat or prime coat has been applied and spread and struck off to the established line, grade, and elevation by means of approved asphalt paving machines in echelon or by one paver when echelon paving is not permitted. Alignment of the outside edges of the pavement shall be controlled by preset control string lines.
 - 1. For pervious pavements utilize track-mounted paving equipment if necessary to overcome potential rutting of the aggregate base caused by wheel-mounted paving equipment.
- D. On areas where irregularities or unavoidable obstacles make the use of mechanical spreading and finishing equipment impracticable, the mixture shall be distributed immediately into place by means of suitable shovels and other tools and spread with rakes and lutes in a uniformly loose layer of such depth as will result in a completed course having the required thickness.

3.02 Compaction

- A. After the asphalt concrete has been spread, struck off, and surface irregularities adjusted, it shall be thoroughly compacted. The method employed must be approved by the Owner and capable of compacting the mixture to the desired density while it is in a workable condition.
 - 1. Once the open-graded mixture is placed by the asphalt paver, the surface shall be smoothed over with a small 3-ton steel wheel roller. Usually, one roller pass when the open-graded material has cooled to about 71 degrees C (160° F) and one roller pass at about 55 C (130° F) is all that is needed, subject to field observation by the Owner's representative.
- B. The following are minimum roller requirements; however, the number of rollers shall be increased if the required results are not being obtained:
 - 1. For each paver up to 16 feet wide, 2 rollers shall be required.
 - 2. For each paver over 16 feet wide, 3 rollers shall be required.
- C. Unless otherwise directed, rolling shall begin at the low side and proceed longitudinally parallel to the road centerline. When paving in echelon or abutting a

previously placed lane, the longitudinal joint shall be rolled first, followed by the regular rolling procedure. When paving in echelon, rollers shall not compact within 6 inches of an edge where an adjacent lane is to be placed. Rollers shall move in a slow uniform speed with the drive wheels nearer the paver and shall be kept as nearly as possible in continuous operation. Rolling shall continue until all roller marks are eliminated.

- D. to prevent adhesion of the mixture to the rollers, the wheels shall be kept properly moistened with water or water mixed with very small quantities of detergent or other approved material. An excess of liquid shall not be used.
- E. It is intended that acceptance density testing will be accomplished while the bituminous mixture is hot enough to permit further densification if such is shown to be necessary. If the density does not conform to the requirements stated hereinabove, the Contractor shall continue compactive efforts until the required density is obtained.
- F. Along curbs, headers, walls and other places not accessible to the rollers, the mixture shall be compacted thoroughly with hot tampers, smoothing irons, or with mechanical tampers.

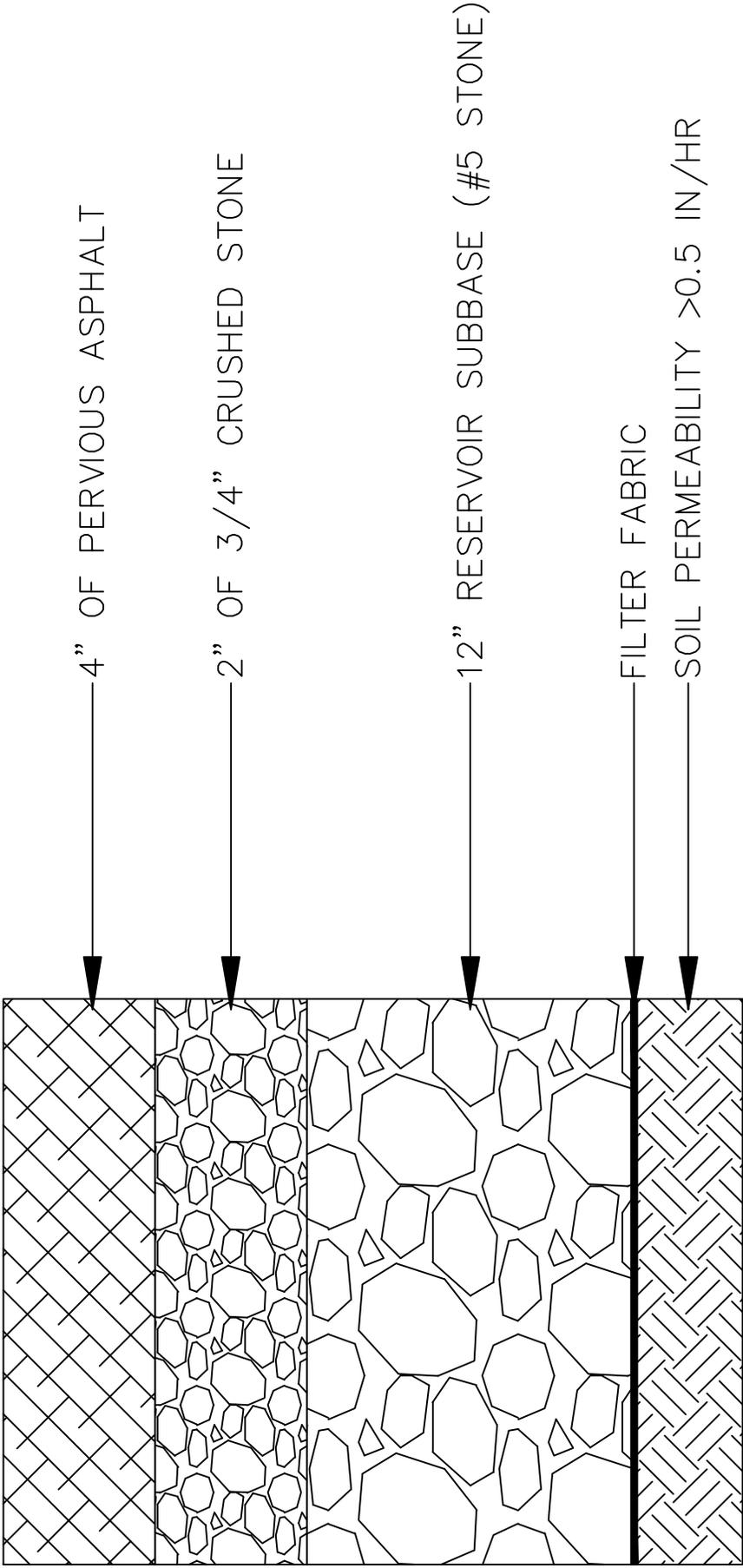
3.03 Field Quality Control

- A. Test in-place asphalt courses for compliance with requirements for thickness density and surface smoothness. Repair or remove and replace unacceptable paving.

3.04 Cleaning and Protection

- A. At completion of each operation, remove excess or spilled materials from site. Dump or spread no excess asphalt materials on Project site.
- B. After placement of surface course, through vehicular traffic shall not be allowed on pavement until it has cooled and hardened and in no case sooner than 48 hours. It is critical that no confined turning movement (head-in parking, K-turns, etc.) be allowed until the asphalt has cured for at least seven days. At the end of seven days, if turning tests confirm that the asphalt surface is not subject to shearing, then turning movements may be allowed upon the surface. Otherwise, extend the curing time for additional days until testing confirms surface integrity under turning movements.
- C. Do not allow mud or sediment to be tracked onto the surface. Immediately remove such materials from the surface. Pressure wash as necessary to remove blockages remaining after surface cleaning.

END OF SECTION



TYPICAL PERVIOUS ASPHALT
CROSS SECTION
NTS