

3.3.3 Mixing:  
Procedure is same for either "dry placing" or "slurry placing". Mix until uniform mixture and moisture content is achieved.

3.3.3.1 First Mixing:  
Thoroughly mix soil and lime to required depth, using pulver-type mixer. Mix until homogeneous, friable mixture of lime and soil is obtained, free of clods or lumps. Add proper moisture and cure as directed sub-base. Keep moist during curing period.

2 Final Mixing:  
After curing, uniformly mix soil and lime using pulver-type mixer. Reduce size of clods or lumps by pulverization.

1.2 WORK INCLUDED, BUT NOT INCLUSIVE

1.2.1 Concrete pedestrian traffic surfaces (walks, ramps, etc.).

2 Concrete vehicular traffic surfaces.

3 Concrete curbs and gutters.

1.3 REFERENCE PUBLICATIONS AND STANDARDS

1.3.1 Governing Authority:  
Applicable standards and regulations of state and municipal agencies having governing authority over the work specified in this section shall take priority over items specified herein and shown on the drawings unless the requirements set forth herein require a superior quality work.

2 Material Standards:  
American Society for Testing Materials (ASTM)  
Concrete Standards:  
American Concrete Institute (ACI): ACI-617 "Standard Specifications for Concrete Practice and Boxes," ACI-308 "Manual of Standard Procedure for Testing Reinforced Concrete..."

1.4 SUBMITTALS

1.4.1 Testing Laboratory Reports:  
Furnish three copies of the test reports to the Owner, indicating results of the cylinder test.

4 Joint Filling and Sealing  
Fill expansion joints with joint filler except for space 3/4" deep at surface. After concrete has set, clean the open joint above filler and fill with joint sealer in accordance with instructions of sealer manufacturer.

3.2.3.5 Finishing  
Vibrate, screed and float concrete to level and test the surface, which shall not vary over 1/4" in ten feet when tested with ten foot straight edge. Finish surface to gritty texture with burp drag or straight continuous strokes with stiff bristle push broom. Finish all edges smooth with 1/8" or 1/4" radius.

3.2.4 Walks:  
3.2.4.1 Configurations  
Construct to cross-sectional details shown on drawings and at indicated locations.

2 Sand Cushion  
Concrete shall be placed over a sand cushion placed on the stabilized subgrade as shown on the drawings or a minimum of 4" thick if not shown on the drawings.

3 Reinforcing  
Reinforce with 6 x 6 x W14, W16, minimum reinforcing unless otherwise indicated or noted on the drawings.

4 Expansion Joints  
Construct expansion joints as detailed in locations shown on the drawings.

5 Finishing  
3.2.4.5.1 General:  
Finish surfaces not noted on the drawings to be finished otherwise to a "smooth" or "burp drag" gritty surface. Tool all joints and all edges to provide a smooth border to each section or division of the work. Finish all vertical surfaces in a manner that leaves the exposed surfaces free of honeycombing and form marks. Any damaged surfaces shall be repaired and stone-tubed to match adjacent finished surfaces.

4.2 DESIGN MIXES

4.2.1 Contractor employ and pay for the services of an Owner-approved independent testing laboratory to determine design mixes for base and surface courses; including asphalt bitumen content; ASTM D2172, latest edition, entitled, "Quantitative Extraction of Bitumen from Bituminous Paving Mixtures."

3.1 GRADE CONTROL  
3.1.1 Establish and maintain lines and grades shown on drawings by means of line and grade stakes.

3.2 TRANSPORTATION  
3.2.1 Transport paving mixes from approved mixing plant to site in tight vehicles with metal bottoms previously cleaned of foreign material. Vehicles shall be suitably insulated to avoid heat losses. Cover each load to prevent cooling and loss of ingredients.

3.3 PLACING  
3.3.1 General:  
Thickness shown on site (SP) drawings. Unless otherwise shown on the drawings, place asphaltic concrete in two courses; first a coarse graded base course, and second a fine graded surface course. Apply base course to prepared sub-base (when applicable) which has been primed with asphalt, MC-1, application temperature 50 to 120 degrees F, at a rate of 0.15 to 0.40 gal/sq. yd. Apply surface course to base course to which has been applied a tack coat of asphalt MC-2, application temperature 100 to 175 degrees F, at rate of 0.05 to 0.25 gal/sq. yd. Place each course under temperature conditions of 40 to 90 degrees F.

3.3.2 Means:  
Dump and spread mixture on primed base with spreading and finishing machine, so that after compaction, surface will be smooth, of uniform density and meets requirements for typical cross-section shown. Other paving means may be proposed.

3 Time and Temperature:  
Place and initially roll during daylight hours. Mixture placing temperature between 225 and 325 degrees F.

4 Protection of Curbs and Gutters:  
Prevent splattering of adjacent curbs, gutter, concrete paving and structures. Hand spreading may be employed where machine is impractical.

5 Finish Grades:  
Approximately 5 inches below adjacent concrete sidewalks, end/or curbs, except as specifically shown otherwise on the drawings; true to grades shown and straight within 1/4 inch in 10 feet when checked with a straight edge. No "bird baths" will be allowed.

3.4 ROLLING  
3.4.1 General:  
After rolling with medium weight steel-wheeled roller, roll with pneumatic, three wheel, or tandem rollers longitudinally at sides and proceed toward center of pavement, overlapping on successive trips by at least half width of rear wheels. Alternate trips of roller shall be slightly different in length.

2 Compression and Roller Marks:  
Roll until no further compression can be obtained and roller marks are eliminated. If required, roll diagonally in each direction with tandem roller with second diagonal rolling crossing line of first rolling.

3.4.3 Prevention of Mixture Adhesion to Roller:  
Keep wheels moistened with water; excessive use of water will not be permitted. Do not permit rollers to stand on pavement which has not been fully compacted and which has not cooled to atmospheric temperature.

4 Displacement:  
Keep movement of roller slow enough to avoid displacement of mixture. Correct any displacement at once by use of rakes and addition of fresh mixture.

5 Precautions:  
Prevent dripping of oil, gasoline and grease on pavement.

6 Hand Operations:  
Thoroughly compact edges of pavement along curbs, headers, aprons, manholes, valve boxes and similar places not accessible to roller with lightly oiled hand-operated vibrating rollers or mechanical tampers.

3.5 SPECIAL TESTING:  
If required by Owner per Article 7, of the GENERAL CONDITIONS.

3.5.1 Extraction and Gradation Test:  
ASTM D2172 for each type. Number and location to be determined on the job by Owner.

2 Field-In-Pace Density Test:  
ASTM D1188 for each type. Number and location to be determined on the job by Owner.

3.5.3 Thickness Test:  
Determine by test borings. Make one test for each 5,000 sq. ft. of paving surface. If average thickness is deficient by no more than 1/4 inch, and no individual thickness is deficient by more than 5/8 inch, installation will be held to meet requirements. If average thickness is deficient by more than 1/4 inch or if any individual thickness determination is deficient by more than 5/8 inch, pavement thickness will be held to not meet requirements. Deficient areas shall be defined, removed and replaced, or adjusted to design thickness by methods acceptable to Owner.

3.6 CLEAN-UP  
3.6.1 Upon completion of work of this section, remove related debris from premises.

1.3.1.1 Fire Lanes:  
Coordinate with all governing authorities to determine exact requirements (whether or not shown on the drawings). Fire lane marking, if required, is part of the work of the base proposal.

2 "Handicapped" Parking Spaces:  
Coordinate with all governing authorities to determine exact requirements (whether or not shown on the drawings). Special markings, if required, is part of the work of the base proposal.

3 Colors:  
Coordinate color requirements with all governing authorities, use any acceptable colors. Colors specified herein shall be used if acceptable.

1.3.1.4 Notification:  
Notify the Owner of any required variation from the drawings resulting from coordination.

5 Detectable Ramp Warnings:  
Raised truncated domes with a diameter of 0.9 inches, a height of 0.2 inches and a center-to-center spacing of 2.35 inches and shall comply with the American Disabilities Act in its entirety.

1.4 GUARANTEE  
1.4.1 Any work found to be defective because of either poor workmanship or defective materials which may be evident within a period of 60 days from acceptance for use will be replaced at no additional cost to the Owner. Indications of defective work for the purpose of this guarantee include poor adhesion to the pavement surfaces, cracking, peeling and discoloration. This shall not be construed to include wear, damage or discoloration caused by traffic, erosion or from normal exposure to the elements.

1.5 REFERENCE STANDARDS

1.5.1 American National Standards Institute (ANSI)

2 American Society for Testing Materials (ASTM)

3 Federal Specifications (FS)

1.6 SUBMITTALS

1.6.1 Shop Drawings:  
Submit per SUBMITTALS Section; show plan layout, grid and spacing of components, accessories, fittings hardware, anchorages, and schedule of components. Owner's acceptance is required prior to start of fabrication and/or shipment.

2.1 BASIC MATERIALS

2.1.1 Framework:  
Schedule 40 steel pipe, standard weight, one piece without joints; ASTM A120.

2.1.1.1 Line Posts  
1.9 inch diameter length required for 8'-0" height.

2 Corner and Terminal Posts  
2.39 inch diameter (min.); size to be determined by use and engineering design. Length as for line posts.

3 Gate Posts  
3.5 inch diameter (min.); size to be determined by use and engineering design. Length as for line posts.

2 Top and Base Rails  
1.66 inch diam. plain end, sleeve coupled.

3 Gates  
1.66 inch diam. (min.) for fittings and truss rod fabrication; size to be determined by engineering design.

DIVISION 2 - SITE WORK

SECTION 02854 - PARKING BUMPERS

PART I - GENERAL

1.1 SCOPE OF WORK  
1.1.1 Furnish all labor, materials, services, equipment and appliances required for parking bumper (wheel stop) work indicated on the drawings and specified herein.

PART II - PRODUCTS

2.1 WHEEL STOPS  
2.1.1 Precast concrete, semi-circular or beveled square in cross-section, 8'-0" long x 6" high x 8" wide, with holes for three dowels cast through each unit.

2.2 DOWELS  
2.2.1 3/4" round x 12" long (minimum) steel dowels as recommended by wheel stop manufacturer.

PART III - EXECUTION

3.1 GENERAL  
3.1.1 Install wheel stops in locations and in accord with details shown on the site (SP) drawings.

3.2 INSTALLATION  
3.2.1 Countersink steel dowels to a point 1/2" to 3/4" below the top surface of the wheel stop and set in such a manner as to avoid chipping or cracking the concrete during installation.

3.3 CLEAN-UP  
3.3.1 Upon completion of work of this section, remove related debris from premises.

END OF SECTION

DIVISION 2 - SITE WORK

SECTION 02900 - LANDSCAPING (NIC)

PART I - GENERAL

1.1 SCOPE OF WORK  
1.1.1 Landscape work, including the furnishing and installation of the irrigation (sprinkler) system, seeding, sodding, and the planting of trees, shrubs and vines, is included in a SEPARATE CONTRACT and is NOT a part of the work of this contract (NIC).

1.2 NOTE  
1.2.1 Landscape contractor shall be responsible for cleaning the sidewalks and parking lot areas of dirt and debris specifically caused by their portion of this work.

PART II - PRODUCTS

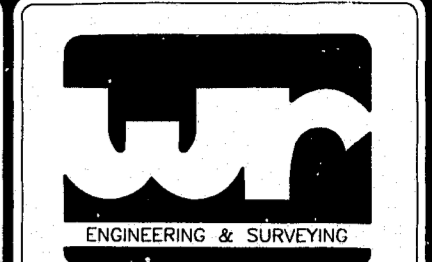
2.1 NOT APPLICABLE

PART III - EXECUTION

3.1 NOT APPLICABLE

END OF SECTION

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**WITHERS & RAVENEL**  
Engineering & Surveying, Inc.

111 MacKenan Drive  
Cary, N.C. 27511

PHONE : 919-465-3340  
FAX : 919-467-6088



**MACARONI GRILL**

CARY COMMONS  
CARY, NORTH CAROLINA

PROJECT	REVISIONS
DRAWN	CHECKED
DOU	GLS
SCALE	DATE
NTS	5/12/95
TITLE	

**SITE SPECIFICATIONS**

FILE NO. JOB NO.  
SHT1.DWG 95072  
SHEET NO.

**2.2**

CONSTRUCTION DRAWINGS