

**PAVING NOTES:**

THE INITIAL SOIL TEST AND REPORT BY FUGRO SOUTH, INC. PROJECT NO. 0703-1081 AND ANY AND ALL SUBSEQUENT REPORTS PREPARED FOR THIS PROJECT BY FUGRO SOUTH OR BY OTHER FIRM, AGENCY OR ENTITY, EVEN THOUGH NO SPECIFIC REFERENCE TO ANY SUCH REPORTS ARE CONTAINED IN THE PLANS AND/OR SPECIFICATIONS FOR THIS PROJECT, ARE MADE A PART OF THIS PLAN. A COPY CAN BE OBTAINED THROUGH THE ARCHITECT OR ENGINEER.

I. PAVEMENT SUB GRADE FOR A & B, BELOW  
 THE CLAY SOILS ENCOUNTERED NEAR THE EXISTING GROUND SURFACE WILL PROBABLY CONSTITUTE THE SUB GRADE FOR MOST OF THE PARKING AND DRIVE AREAS. THEREFORE, IT IS RECOMMENDED THAT THESE SOILS BE IMPROVED PRIOR TO CONSTRUCTION OF THE PAVEMENTS.

IT IS RECOMMENDED THAT THE EXISTING CLAY SOILS IN DRIVE AND PARKING AREAS BE EXCAVATED TO ACHIEVE FINAL SUB GRADE ELEVATION. THE EXPOSED SURFACE OF THE CLAYS SHOULD BE SCARIFIED TO A DEPTH OF AT LEAST 6 INCHES AND MIXED WITH AN ESTIMATED 7 PERCENT OF HYDRATED LIME (BY DRY UNIT WEIGHT) IN CONFORMANCE WITH TEXAS HIGHWAY DEPARTMENT ITEM 280. ASSUMING AN IN-PLACE UNIT WEIGHT OF 100 PCF FOR THE PAVEMENT SUB GRADE SOILS, THIS PERCENTAGE OF LIME EQUATES TO ABOUT 32 LBS OF LIME PER SQ. YARD OF SUB GRADE TREATED. THE ACTUAL AMOUNT OF LIME REQUIRED SHOULD BE DETERMINED BY ADDITIONAL LABORATORY TESTS. IT IS RECOMMENDED THAT THE LIME STABILIZATION PROCEDURES EXTEND AT LEAST 4 FT. BEYOND THE EDGE OF THE PAVEMENT TO MINIMIZE THE EFFECTS OF SEASONAL SHRINKING UPON THE EXTREME EDGES OF PAVEMENT. THE SOIL-LIME MIXTURE SHOULD THEN BE COMPACTED TO AT LEAST 95 PERCENT OF STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698) WITHIN 3 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT. IN ALL AREAS WHERE HYDRATED LIME IS USED TO STABILIZE THE SUB GRADE SOILS, ROUTINE ATTERBERG-LIMIT TESTS SHOULD BE PERFORMED TO ASSURE THAT THE RESULTING PLASTICITY INDEX OF THE SOIL-LIME MIXTURE IS AT OR BELOW 15.

THE CLIENT SHOULD BE AWARE THAT MECHANICAL LIME STABILIZATION OF THE PAVEMENT SUB GRADE SOILS WILL NOT PREVENT DEEP SEATED MOVEMENT OF THE UNDERLYING UNSTABILIZED MATERIALS. FUTURE MAINTENANCE OF PAVEMENTS SHOULD BE EXPECTED OVER THE LIFE OF THE STRUCTURE.

II. PAVING

A. CONCRETE DRIVEWAYS  
 SUB GRADE SHALL BE AS INDICATED IN SECTION I.  
 CONCRETE DRIVEWAY APPROACHES SHALL BE A MINIMUM OF 6 INCHES THICK. CONCRETE DRIVEWAY APPROACHES SHALL HAVE A RISE OF NOT LESS THAN 6 INCHES NOR MORE THAN 9 INCHES FROM THE FLOW LINE OF THE CUTTER TO A POINT 10 FEET BEHIND THE FACE OF THE CUTTER. CONCRETE FOR DRIVEWAYS SHALL BE A MINIMUM OF 3,600 PSI IN 28 DAYS CONCRETE WITH 6 PERCENT ENTRAINED AIR. THE GRADE BELOW THE DRIVEWAY, INCLUDING 4 FOOT OUTSIDE OF THE OUTER EDGE OF THE DRIVEWAY SHALL BE COMPACTED TO 95% STANDARD PROCTOR DENSITY, AND AS INDICATED IN THE "PAVEMENT SUB GRADE NOTES". DRIVEWAYS SHALL HAVE CONTRACTION JOINTS NOT MORE THAN 15 FEET APART, BOTH TRANSVERSELY AND LONGITUDINALLY ONE-HALF INCH EXPANSION JOINT SHALL BE PLACED ON THE PROPERTY LINES BETWEEN THE APPROACH AND THE DRIVEWAY. THE JOINTS SHALL BE FILLED WITH PRE MOLDED GRAY BITUMINOUS EXPANSION JOINT FILLER AND SHALL EXTEND THE ENTIRE DEPTH AND LENGTH OF THE CONCRETE SECTIONS.

FINISHING SHALL BE AS INDICATED IN SECTION III.  
 NOTE: NO CONCRETE SHALL BE PLACED FOR DRIVEWAYS UNTIL THE SUB GRADE, REINFORCEMENT PLACEMENT HAS BEEN INSPECTED AND APPROVED BY THE CITY OR STATE (WHICHEVER IS APPLICABLE).

B. PARKING LOTS  
 PARKING LOT SUB GRADE SHALL BE AS INDICATED IN SECTION I.  
 PAVING SHALL BE 5" REINFORCED CONCRETE IN LIGHT TRAFFIC AREAS AND 6" REINFORCED CONCRETE IN HEAVY TRAFFIC AREAS 3,600 PSI IN 28 DAYS CONCRETE WITH 4-6% ENTRAINED AIR REINFORCED WITH #3 BARS AT 24" O.C.E.W. SUPPORTED WITH PROPER SUPPORT CHAIRS. EXPANSION JOINTS SHALL BE AT 150' MAXIMUM O.C. AND SAW-CUT CONTRACTION JOINTS AT MAXIMUM 15' O.C. ALL JOINTS TO BE CLEANED AND FILLED WITH HOT POURED RUBBER (GRAY).  
 FINISHING SHALL BE AS INDICATED IN SECTION III.

C. ON-SITE SIDEWALKS  
 CONCRETE SIDEWALKS SHALL BE A WIDTH AS DESIGNATED ON SITE PLAN AND A MINIMUM OF 4 INCHES THICK, CONSTRUCTED OF 3,600 PSI, IN 28 DAYS CONCRETE WITH 4-6% ENTRAINED AIR AND REINFORCED WITH #3 BARS AT 18" O.C.E.W. TOOK CONSTRUCTION JOINTS SHALL BE 5'-0" O.C. ONE-HALF INCH EXPANSION JOINT SHALL BE PLACED EVERY 40 FEET AND WHERE NEW WORK IS CONSTRUCTED ADJACENT TO OTHER CONCRETE WORK (WALLS, FOUNDATION, CURB, ETC.) THE JOINTS SHALL BE FILLED WITH 1/2-INCH PRE MOLDED GRAY BITUMINOUS EXPANSION JOINT FILLER AND SHALL EXTEND THE ENTIRE DEPTH AND WIDTH OF THE CONCRETE SECTION.

FINISH OF SIDEWALKS SHALL BE WITH A BROOM FINISH PER ENGINEER. WALKS SHALL HAVE TOOLED CURB EDGES & TOOLED JOINTS.

III. FINISHING FOR CONCRETE DRIVEWAY, PARKING LOT AND STREET CURBS

THE EXPOSED SURFACES OF DRIVEWAYS AND PARKING LOT SHALL HAVE A MONOLITHIC FINISH BY FLOATING WITH A WOODEN FLAT UNTIL A SLIGHT EXCESS OF SAND APPEARS ON THE SURFACES. IN NO CASE SHALL THE SURFACE BE LEFT SLOSHY OR WITH A GLOSSY FINISH. EXPOSED SURFACES OF SIDEWALKS SHALL HAVE A MONOLITHIC FINISH BY TROWLING WITH A STEEL TROWEL AND BRUSHED LIGHTLY WITH AN APPROVED BROOM. THE EDGE OF ALL CONCRETE SHALL BE NEATLY ROUNDED TO THE REQUIRED RADIUS WITH AN EDGING TOOL.

THE EXPOSED SURFACE OF CURBS AND CURBS WITH GUTTER SHALL BE SHARPED WITH A "JAW" AND BRUSHED WITH WET BRUSH AT RIGHT ANGLE TO THE LINE OF THE CURB TO PRODUCE A UNIFORM TEXTURED SURFACE. THE EDGES SHALL BE NEATLY ROUNDED OFF TO THE REQUIRED RADIUS. USE OF GROUT OVER A ROUGH FINISHED TEXTURE WILL NOT BE ALLOWED.

**PAVING LEGEND**

- PROPOSED 6" REINFORCED CONCRETE PAVEMENT 3,600 P.S.I. CONCRETE, 6 1/2 SACK HAND FINISH 6 SACK MACHINE FINISH WITH #3 REBARS ON 24" CENTERS EACH WAY.
- PROPOSED 5" REINFORCED CONCRETE PAVEMENT 3,600 P.S.I. CONCRETE, 6 1/2 SACK HAND FINISH 6 SACK MACHINE FINISH WITH #3 REBARS ON 24" CENTERS EACH WAY.
- PROPOSED 7" REINFORCED CONCRETE PAVEMENT 3,600 P.S.I. CONCRETE, 6 1/2 SACK HAND FINISH 6 SACK MACHINE FINISH WITH #3 REBARS ON 24" CENTERS EACH WAY.
- PROPOSED 4" REINFORCED CONCRETE SIDEWALK WITH #3 REBARS ON 24" CENTERS EACH WAY.

These Drawings have been modified to conform to the Construction Records.  
 Glenn Engineering Corporation  
 By *[Signature]* Date: 0-15-04

NOTE: NO SAND WILL BE PERMITTED UNDER PAVEMENT.

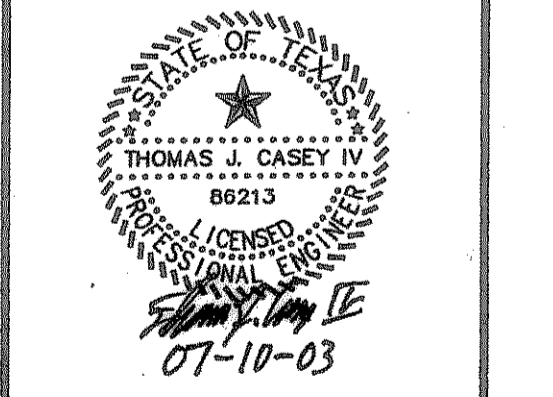


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DATE: May 6, 2003  
 DRAWN BY: TJC  
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 CADD NO: 144102110  
 REVISION: May 23, 2003

**SPRINGER ELEMENTARY SCHOOL**  
**ROCKWALL INDEPENDENT SCHOOL DISTRICT**  
**ROCKWALL, TEXAS**

FINAL PLANS FOR BIDDING AND CONSTRUCTION



*[Signature]*  
**SHW Group Inc.**  
 Architects + Engineers

SHEET NUMBER **C**  
 OF **2.18**  
 SET NUMBER