REVISIONS Boring No. B-1 Boring No. B-2 Boring No. B-2A STATION 74+92, 7'RT OF SURVEY STATION 75+62, 22' LT OF SURVEY STATION 75+62, 27' LT OF SURVEY (April 30, 2015) (MAY 1, 2015) (MAY 1, 2015) LEGEND 610 — DCD = DIAMOND CORE DRILLING, ASTM D2113-83 **—** 610 SPT = STANDARD PENETRATION TEST, ASTM D1586 SURFACE ELEVATION 606.0 SS = SPLIT SPOON SAMPLER 6" Asphalt 606.0 12" Concrete N = NUMBER OF BLOWS PER 12 INCHES 604.0 SPT-1;N=6;MC=16%; LL=NP;PL=NP;Pl=NP;P200=31% MC = MOISTURE CONTENT FILL - CLAYEY SAND, with 604.5/ LL = LIQUID LIMIT (NV=NO VALUE) gravel, dark brown (3/3,10YR) 601.0 SPT-2;N=4;MC=14% PI = PLASTICITY INDEX (NP=NO PLASTICITY) #200 = PERCENT PASSING #200 SIEVE 597.5 SPT-3;N=3;MC=12% UCS = UNCONFINED COMPRESSIVE STRENGTH (psi) TCP = TEXAS CONE PENTROMETER CLAYEY SAND WITH GRAVEL 592.5 ₩¢I = WET CAVE IN 592.5 SPT-4;N=2;SOIL REC=3 (In.);MC=21% ■ = WATER LEVEL WHILE DRILLING OR SAMPLING (SC), light olive-brown (5/4,2.5Y), LL=24:PL=15:PI=9:P200=29% SURFACE ELEVATION 589.5 very loose = WATER LEVEL AFTER DRILLING SURFACE ELEVATION 589.0 Not Sampled (See B-2) 590 ---SANDY LEAN CLAY (CL), brown 589.5 **---** 590 589.0 SPT-1;N=2;SOIL REC=18 (In.);MC=18% = WATER LEVEL 24 HOURS AFTER DRILLING (5/4 7 5YR) soft P200=54% 587.5 SPT-5;N=3;SOIL REC=18 (In.);MC=20% CLAYEY SAND (SC), olive-brown 587.5 = TOP OF ROCK (4/4,2.5Y), very loose 584.5 SPT-2;N=3;SOIL REC=12 (In.);MC=18% CLAYEY SAND (SC), brown 584.5 NOTE: WATER LEVEL ELEVATIONS SHOWN WERE OBTAINED AT THE CLAYEY SAND (SC), 582,5 (5/4,7.5YR), very loose TIME THE BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHTOUT THE YEAR. 582.5 SPT-6;N=3;SOIL REC=18 (In.);MC=20% yellowish-brown (5/6,10YR), very 582.0 ¥ FAT CLAY (CH), olive (4/4,5Y) 581.0 581.0 SPT-3;N=19;SOIL REC=18 (In.);MC=19% loose NOTE: "SS" DENOTES STANDARD PENETRATION TEST. ASSHTO D1586-84. "TCP" and gray (5/1,2.5Y), very stiff LL=57:PL=22:PI=35 580 — DENOTES TEXAS CONE PENETRATION TEST. HIGHLY WEATHERED SHALE+, 577.5 575.5 SPT-1:N=50/6": 577.5 SPT-7;N=19;SOIL REC=18 (In.);MC=21% 576.0 SPT-4;N=50/5";SOIL REC=17 (In.);MC=16% with sand, gray (5/1,2.5Y) and \* NOTE: TOP OF ROCK LINE SHOWN FOR ESTIMATING PURPOSED ONLY SOIL REC=12 (In.);MC=16% SHALE+, with clay and sandstone seams, gray (5/1,2.5Y), soft to 575.0 yellowish-brown (5/6,10YR), soft SHALE+, dark gray (4/1,2.5Y), 575.0 \*\* NOTE: WATER LEVEL ELEVATION SHOWN WERE OBTAINED AT THE soft to moderately hard TIME THE BORINGS WERE DRILLED AND MAY FLUCTUATE THROUGHOUT THE YEAR. 574.5\_REC = 28% 574,0 TCP 50/2 1/2" moderately hard HIGHLY WEATHERED SHALE+, 572.5 572.5 SPT-8;N=57;SOIL REC=18 (In.);MC=19% 573.5 RQD = 15% UCS=11 50/2 1/2" \*\*\* NOTE: ROCK CLASSIFICATION IS BASED ON DRILLING CHARACTERISTICS (in feet) gray (5/1,2.5Y), soft AND VISUAL OBSERVATION OF ROCK CORE SAMPLES. PETROGRAPHIC ANALYSIS 570 — 569.5 REC = 97% **---** 570 OF THIN SECTION OF THE ROCK CORE SAMPLES MAY REVEAL OTHER TYPES. 569.0 TCP 50/2 1/2" 567.5 SPT-9:N=50/6";SOIL REC=18 (In.);MC=17% Elevation ( RQD = 76% 50/2 1/8" SHALE+, gray (5/1,2.5Y), soft 566.5 566.5 UCS=20 566.5 = TOP OF ROCK SITE GEOLOGY 564.5 REC = 100% 564.0 TCP 50/2" 564.0 TCP 50/6" 562.5 RQD = 95% UCS=61 50/5 1/2" 50/1 1/2" Based on the results of our borings and information published in the Oklahoma Department of Transportation manual, "Engineering Classification of Geologic 559.5 REC = 100% **---** 560 559.0 TCP 50/3" 559.0 TCP 50/2" Materials: Division 2", the project is underlain by the Washita Unit, This unit RQD = 100% 50/2" 50/4" SANDSTONE+, gray (5/1,2.5Y), 557.5 consists dominantly of clay shales with minor amounts of limestones and UCS=35 well cemented sandstones. The clay shales are mostly blue to black, weathering to light gray, 554.5 REC = 93% yellow, and various other colors. 554.0 TCP 50/3/16" 554.0 TCP 50/1/16" SHALE+, with sandstone seams, 553.5 RQD = 78% 50/1/8" 50/1/16" \<u>553.5</u>\_UCS=51 gray (5/1,2.5Y), moderately hard The limestones are highly fossilferous, gray to yellowish, usually with interbedded clay beds which reach a maximum thickness of about 6 feet in Bryan County and SANDSTONE+, gray (5/1,2.5Y), 551.5 SANDSTONE+, with shale seams, 549.0 549.5 REC = 94% 550 ---**—** 550 549.0 TCP 50/1" 549.0 TCP 50/1 1/2" thin rapidly both eastward and westward to generally less than 3 feet thick. In cemented to well cemented greenish-gray (5/1,GLEY1), well RQD = 82% 50/1 1/4" 548.5 SPT-14;N=50/1";MC=18% Bryan County, the sandstones are soft, yellowish-brown, and occur in thin lenses. \548.5 UCS=4807 544.0 TCP 50/7/8" 544.0 TCP 50/1" BOTTOM OF BORING 544.5 — BOTTOM OF BORING 544.0 50/3/16" **GEOTECHNICAL REPORT** 539.0 TCP 50/2 3/4" 50/2 1/4" ALL GEOTECHNICAL INFORMATION CONTAINED ON THIS SHEET IS COVERED BY THE ENGINEERING SEAL AFFIXED TO AN ORIGINAL GEOTECHNICAL ENGINEERING REPORT THAT HAS BEEN STAMPED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN 534.5 TCP 50/1 1/2" OKLAHOMA. TO OBTAIN A COPY OF THE COMPLETE REPORT, CONTACT THE ODOT BOTTOM OF BORING 534.0 — OFFICE ENGINEER AT (405) 521-2625. THE CONTRACTOR SHOULD BE FULLY AWARE OF THE SITE CONDITIONS PRIOR TO BEGINNING WORK. ANY ADDITIONAL GEOTECNICAL INFORMATION WHICH MAY BE DESIRED IS THE RESPONSIBILITY OF THE CONTRACTOR. 530 -BRIDGE "A" SH-78 OVER CHUCKWA CREEK BRYAN COUNTY Design N/A N/A Detail N/A N/A **FOUNDATION REPORT** Check N/A N/A (SHEET 1 OF 2) Sauat HENSLEY m: DEFRANCO 9522 EAST 47TH PLACE, UNIT D TULSA, OKLAHOMA 74146 STATE OF DEPARTMENT OF TRANSPORTATION OKLAHOMA JOSPIECINO. 27912(04) SHEETINO. BOO2 FAX. (918) 250-4570