

APPENDIX A

**QUALIFICATIONS OF PROJECT
PERSONNEL**

Barbara J. Gundy, Ph.D.
Cultural Resource Specialist
Archaeologist

Skelly and Loy, Inc.
Engineers and Consultants
2500 Eldo Road, Suite 2
Monroeville, PA 15146

Education

Ph.D. 1993, M.A. 1985, Anthropology University of Pittsburgh, Pittsburgh, Pennsylvania.
B.A. 1981, Anthropology Kutztown State College, Kutztown, Pennsylvania.

Areas of Specialization

Cultural Resource Management; Field Methodology; Perishable Artifact Analysis; Historic Period Ceramic Manufacturing; North American Prehistory

Professional Experience

2000-Present: Cultural Resource Specialist, Archaeologist, Skelly and Loy, Inc., Monroeville, Pennsylvania. Principal Investigator and Project Manager, Skelly and Loy, Inc. Responsible for project management of numerous cultural resource projects in Pennsylvania and West Virginia for government and private sponsors.

1997-2000: Director, Principal Investigator, Archaeological and Historical Services, Eastern Washington University, Cheney. As Director and Principal Investigator at AHS Dr. Gundy has solicited, managed, and completed over 340 projects in Idaho, Montana, Oregon, and Washington states.

1992-1997: Principal Investigator, Project Manager, and Field Supervisor, Center for Cultural Resource Research, University of Pittsburgh.

1995-1996: Principal Investigator, Consultant, Red Earth Environmental, Inc.

1985-1994: Research Specialist III and IV, Center for Cultural Resource Research, University of Pittsburgh. Principal Investigator, Senior Project Manager, Field Supervisor.

1993-1994: Archaeologist, IPA-U.S. Army Corps of Engineers, Pittsburgh District.

1988: Teaching Assistant, Department of Anthropology, University of Pittsburgh. Archaeological Field School site (36WH38) Moore/Olah Site. Washington County, Pennsylvania.

1983-1985: Staff Member, Carnegie Museum of Natural History, Section of Anthropology. Ethnographic and Archaeological Collections Management, Photography, and Independent research, Pittsburgh, Pennsylvania.

Professional Summary

Dr. Gundy has over 15 years of archaeological field and administrative experience of which the majority has been in Cultural Resource Management. Dr. Gundy has administered or served as the Principal Investigator on numerous projects for federal, state, and local governmental agencies as well as private firms including the DE, OH, PA, WA, and WV Departments of Transportation; Federal Highway Administration; Bonneville Power Administration; the Pittsburgh, Seattle, and Walla Walla Districts of the U.S. Army Corps of Engineers; National Forests, U.S., PA, and WA Departments of Environmental Resources, OR, PA, and WA state historic preservation offices, numerous ID, OH, OR, PA, and WA county and municipal authorities, school districts, and many civil and environmental engineering firms. The projects which Dr. Gundy has been associated with range from large-scale data recoveries to archaeological testing and survey to historic structure inventories to literature searches and include resources associated with both the prehistoric and historic periods. In addition to CRM work, Dr. Gundy has been involved with several public educational projects utilizing both elementary and secondary school aged and adult volunteers in archaeological fieldwork and artifact processing. Dr. Gundy is a certified member of the Register of Professional Archaeologists as well as a member of several other national and state professional societies. Dr. Gundy's publications include a monograph, journal articles, and numerous cultural resource reports and professional papers.

MARGARET G. SAMS, CPSS
Soil Scientist/Geomorphologist

Skelly and Loy, Inc.
Engineers and Consultants
2500 Eldo Road, Suite 2
Monroeville, PA 15146

Education

M.S./1986/Agronomy, Pennsylvania State University, State College, Pennsylvania
B.S./1979/Agronomy, Ohio State University, Columbus, Ohio

Active Registration (Discipline/Year First Registered)

Certified Professional Soil Scientist (C.P.S.S.)/1981

Areas of Specialization

Soil genesis, morphology, and classification

Professional Experience

Ms. Sams has been involved in field investigations and document preparation regarding the assessment and protection of cultural resources. Her project experience includes highway and bridge relocations, wetland mitigation sites, utility development projects, gravel quarries, surface mines, and industrial development sites. She has performed geomorphological and soils assessments in undisturbed contexts, highly disturbed areas, hazardous waste sites, and areas covered with fill. She has completed geomorphological investigations for projects throughout Pennsylvania, West Virginia, Ohio, and New Jersey. She has also been involved in over one hundred other projects involving transportation, industrial, commercial, and utility development. Transportation projects on which she has interpreted geomorphology include dozens of bridge replacements and wetland mitigation sites, as well as large projects such as the Tunkhannock Bypass, WV Route 340, U.S. Route 220 in PA and WV, U.S. 15 in NY and PA, and the Mon/Fayette Transportation project.

While in Ohio, working for the Soil Conservation Service, Ms. Sams classified and mapped over 40,000 acres of soils and prepared several manuscript sections for the Muskingum County Soil Survey.

APPENDIX B
SCOPE OF WORK

**SUSSEX COUNTY, DELAWARE
S.R. 54 IMPROVEMENTS,
SOUND CHURCH ROAD TO KEENWICK ROAD
PHASE I ARCHAEOLOGY
AGREEMENT No. 1117
WORK ORDER No. 009**

REVISED TECHNICAL PROPOSAL

1.0 Project Background

The Delaware Department of Transportation (DelDOT) has contracted with Skelly and Loy, Inc., to provide archaeological services for the proposed improvements to S.R. 54, from just east of Sound Church Road to just west of Keenwick Road (Figure 1). The S.R. 54 improvements project is located in Baltimore Hundred of Sussex County, Delaware.

The improvements will include modification of the existing two-lane road into a three-lane road with a center turn lane. The improvements will be required to service a large number of new residential developments completed and proposed for the area.

The area of potential effect (APE) for archaeology includes all areas of potential construction impact. All impacts should occur within the proposed 85 ft wide right of way (i.e., 42.5 ft of either side of the existing center line. Total project length is approximately 10,000 ft.

2.0 Scope of Work

2.1 Archaeological Background Research

The archaeological survey will begin with background research. This will include a review of the state site files, previous research in the vicinity, historic map resources, and the project-specific work previously completed by MTA. The background research will also include review of 1974-1975 and 2002 video footage of the project corridor.

2.2 Initial Consultation

The project area is closely linked with historic-era and modern remnant Native American populations. DelDOT and Skelly and Loy will make initial contacts with concerned Native American groups during this work order, providing details of proposed work and establishing channels of communication.

2.3 Geomorphological Reconnaissance

A geomorphological reconnaissance will be completed to determine the nature of soils in the APE, to delineate areas of modern disturbance, to delineate wet areas, and to determine which areas will require Phase I survey. Available geological and soils references will be reviewed, and the Geomorphologist will place sufficient hand-auger borings to characterize the APE. All auger boring locations will be recorded on project mapping, and select profiles will be recorded.

2.4 Phase I Field Survey

All testable areas will be examined through either surface survey (if visibility is sufficient) or the excavation of shovel test pits (STPs). The survey will utilize screened shovel test pits at 15.0-30.0 m intervals along a single transect 12.0 m from the existing centerline. In each test area, the testing will begin with STPs at 15.0 m intervals. If there are three negative STPs excavated at 15.0 m intervals, the interval will be increased to 30.0 m intervals for the remainder of the test area or until an STP yields artifacts. As soon as an STP yields an artifact, the crew will backtrack 15.0 m to refine the site boundaries. Boundary-definition STPs will also be placed at 5.0 m intervals north and south of positive STPs. Judgmental STPs (in addition to transect STPs) may also be placed on the basis of field observations and in specific historic house locations.

The STPs will measure 50.0 cm in diameter and will be excavated to sterile subsoil. All soil will be screened through 0.63 cm (0.25 in) mesh. Notes will be made on the artifact content and soil stratigraphy of each STP. The cost proposal is premised on the excavation of not more than 60 STPs.

If plowed fields with more than 75 percent surface visibility are present in an APE, and if the geomorphological reconnaissance indicates that the plowzone is the only potential artifact-bearing soil on the landform, surface survey will replace the excavation of STPs. Surface survey will be undertaken along a single transects 12.0 m from the existing centerline. All surface finds will be plotted onto the project plan view mapping, and sufficient judgmental STPs will be excavated to characterize the soil profile and artifact density.

2.5 Management Summary

The results of the Phase I survey will be presented in a brief Management Summary. Detailed laboratory analysis is not included in the present proposal. The Management Summary will not include environmental background and culture history sections.

APPENDIX C
SOIL PROFILES

SOIL PROFILE

STP A-3

Date: March 4, 2003

County: Sussex Co., Delaware

Soil Description By: M.G. Sams, CPSS

Project Location: S.R. 54, Test Area A

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap / 0-45.0 cm (0-17.7 in)	10YR 4/2 Dark grayish brown		sandy loam	weak medium granular	very friable	clear, smooth	
Btg / 45.0-55.0 cm+ (17.7-21.7 in+)	2.5Y 5/1 Gray		sandy clay loam	weak coarse subangular blocky	friable		

Additional Notes: Upland position, grassy area; well developed profile of coastal plain sediments, gleyed below 45.0 cm (17.7 in).

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SOIL PROFILE

STP D-1

Date: March 4, 2003

County: Sussex Co., Delaware

Soil Description By: M.G. Sams, CPSS

Project Location: S.R. 54, Test Area D

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Fill /0-13.0 cm (0-5.1 in)			sandy loam				
A / 13.0-23.0 cm (5.1-9.1 in)	10YR 3/2 Very dark grayish brown		sandy loam	weak coarse granular	very friable	clear, smooth	
Bt / 23.0-40.0 cm+ (9.1-15.8 in+)	10YR 5/4 Yellowish brown		sandy clay loam	weak medium blocky	friable		

Additional Notes: Upland position, lawn; well developed profile of coastal plain sediments, covered with 13.0 cm (5.1 in) of fill.

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SOIL PROFILE

STP H-4

Date: March 5, 2003

County: Sussex Co., Delaware

Soil Description By: M.G. Sams, CPSS

Project Location: S.R. 54, Test Area H

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap / 0-35.0 cm (0-13.8 in)	10YR 3/2 Very dark grayish brown		sandy loam	weak medium granular	very friable	clear, smooth	
Bt / 35.0-50.0 cm+ (13.8-19.7 in+)	2.5Y 5/4 Light olive brown		sandy clay loam	weak coarse subangular blocky	friable		

Additional Notes: Upland position, soybean field; well developed profile of coastal plain sediments.

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SOIL PROFILE

STP J-3

Date: March 5, 2003

County: Sussex Co., Delaware

Soil Description By: M.G. Sams, CPSS

Project Location: S.R. 54, Test Area J

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap / 0-60.0 cm (0-23.6 in)	10YR 3/2 Very dark grayish brown		sandy loam	weak medium granular	very friable	clear, smooth	
Bt / 60.0-90.0 cm+ (23.6-35.4 in+)	2.5Y 6/3 Light yellowish brown		sandy clay loam	weak coarse subangular blocky	friable		

Additional Notes: Upland position, fallow field; well developed profile of coastal plain sediments.

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SOIL PROFILE

STP N-5

Date: March 4, 2003

County: Sussex Co., Delaware

Soil Description By: M.G. Sams, CPSS

Project Location: S.R. 54, Test Area N

Horizon/Depth	SOIL COLOR		Texture	Structure	Consistence	Boundary	Comments
	Matrix	Mottling					
Ap / 0-15.0 cm (0-5.9 in)	10YR 3/2 Very dark grayish brown		sandy loam	weak medium granular	very friable	clear, smooth	
BA / 15.0-30.0 cm (5.9-11.8 in)	10YR 5/2 Grayish brown		sandy loam	weak fine subangular blocky	friable	gradual, smooth	
Bt / 30.0-50.0 cm+ (11.8-19.7 in+)	2.5Y 5/4 Light olive brown	common: 10YR 5/4 Yellowish brown	sandy loam	weak medium blocky	friable		

Additional Notes: Upland position, lawn; well developed profile of coastal plain sediments.

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APPENDIX D
ARTIFACT CATALOG

S.R. 54 (Sound Church Road to Keenwick Road) Artifact Catalog

FS Number	Catalog Number	Test Area	STP	Stratum	Depth BGS	Depth IS	Artifact	Comments
1	1	N	N-5	1	0-10 cm	0-10 cm	whiteware	plate body sherd; crazed; clear glaze; cross-mends with FS 1.2
1	2	N	N-5	1	0-10 cm	0-10 cm	whiteware	plate body sherd; crazed; clear glaze; cross-mends with FS 1.1
1	3	N	N-5	1	0-10 cm	0-10 cm	whiteware	plate foot rim sherd; crazed; clear glaze
1	4	N	N-5	1	0-10 cm	0-10 cm	whiteware	plate foot rim sherd; crazed; clear glaze
2	1	N	N-5	5	10-20 cm	0-10 cm	whiteware	plate body sherd; crazed; clear glaze; cross-mends with FS 2.2
2	2	N	N-5	5	10-20 cm	0-10 cm	whiteware	plate foot rim sherd; crazed; clear glaze; cross-mends with FS 2.1