SURVEY OF HIGHWAY CONSTRUCTION MATERIALS

IN THE TOWN OF HYDE PARK, LAMOILLE COUNT, VERMONT

Prepared By

STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION
ENGINEERING GEOLOGY SUBDIVISION

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Acknowledgments

This project acknowledges the surficial geological information obtained from Professor D. P. Stewart of Miami University, Oxford, Ohio and the bedrock information from the Centennial Geologic Map of Vermont, C. G. Doll.

History

The Materials Survey Project was initiated in 1957 by the Vermont Department of Highways with the assistance of the Bureau of Public Roads to compile an inventory of highway construction materials in the State of Vermont. Previously, investigations for highway construction materials were conducted only as the immediate situation required and only limited areas were surveyed. Since no overall picture of material resources was available, highway contractors or resident engineers were required to locate the materials for their respective projects and the samples were tested by the Materials & Research Division. The additional expense of exploration for construction materials resulted in higher construction costs being paid by the State. The Materials Survey Project was formed to minimize this factor by enabling the State and the contractors to use available information on material resources and to project cost estimates. Knowledge of locations of suitable materials is an important factor in planning highways.

The sources of construction materials are located by this Project through ground reconnaissance, study of maps and aerial photographs, and geological and physiographic interpretation. Maps, data sheets and work sheets furnish information of particular use to contractors and construction personnel, and should be studied together for maximum benefit.

Enclosures

Included in this report are two surface-geology maps, one defining the location of tests on bedrock, the other defining the location of tests on

granular materials. These maps are based on 15-minute or 7-½-minute quadrangles of the United States Geological Survey enlarged or reduced to 1:31250 or 1" = 2604'. The various rock formations and types are delineated on the Bedrock Map of the township. This information is obtained from: Vermont Geological Survey Bulletins, Vermont State Geologist Reports, United States Geological Survey Bedrock Maps, Centennial Geologic Map of Vermont, the Surficial Geologic Map of Vermont and other references.

The granular materials map shows areas of various types of glacial deposits (outwash, moraines, kames, kame terraces, eskers, etc.) which are potential sources of gravel and sand. This information was obtained primarily from a survey conducted by Professor D. P. Stewart of Miami University, Oxford, Ohio, who mapped the glacial features of the State of Vermont during the summer months from 1956 to 1966. Further information is obtained from the Soil Survey (Reconnaissance) of Vermont (conducted by the Bureau of Chemistry and Soils of the United States Department of Agriculture), available Soil Surveys of individual counties (by the Soil Conservation Service of the United States Department of Agriculture), Vermont Geological Survey Bulletins, United States Geological Survey Quadrangles, aerial photographs and other sources. The location of each test area is represented by a Map Identification Number.

This report contains data sheets with detailed information on each test taken in the Granular and Bedrock areas. Data is also used from an active card file compiled by the Materials & Research Division over a period of years. Some cards are not used because they are incomplete or have unusable information on the location of the deposit.

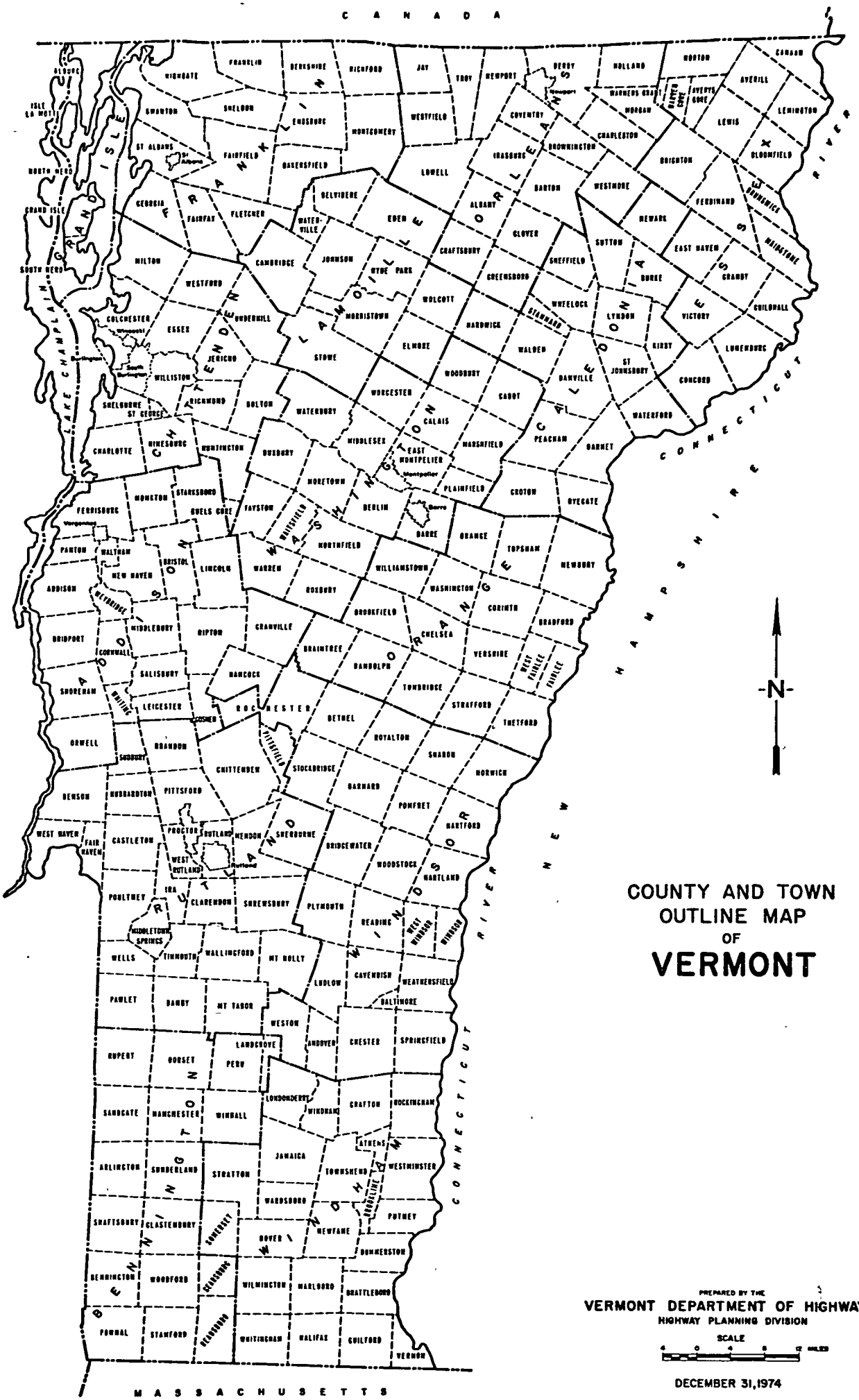
Work sheets containing more detailed information and a field sketch of the area, and laboratory test results are on file in the Materials & Research Division of the Agency of Transportation, State of Vermont.

LOCATION

The Town of Hyde Park is in the center of Lamoille County, in the north-central part of Vermont. It is bounded on the north by Eden, the west by Johnson, the south by Morristown, the east by Wolcott, and the northeast by Craftsbury (See County and Town Outline Map of Vermont on the following page).

Hyde Park lies entirely within the Vermont Piedmont Physiographic Subdivision of the New England Upland. The Vermont Piedmont in Hyde Park is characterized by undulating-to-rough topography. Elevations range from 1854' atop McKinistry Hill in the northern section of town, to 535' where the Lamoille River enters the town of Johnson in the southwest corner of town.

Major drainage is via the Lamoille River which flows to the northeast and acts as the southwest border of town, and its tributaries which generally flow to the south into the Lamoille River valley. The main tributaries are the Green River, Rodman Brook, Centerville Brook, and the Gihon River with its tributary, Beaver Meadow Brook. There are many unnamed brooks in town. The largest body of water is the Green River Reservoir. Other ponds in town are Collins Pond, Clear Pond, Zack Woods Pond, and Schofield Pond. All are in the northeast corner of town along with a number of small "kettle hole" ponds.



COUNTY AND TOWN OUTLINE MAP OF VERMONT

PREPARED BY THE
VERMONT DEPARTMENT OF HIGHWAYS
HIGHWAY PLANNING DIVISION

SCALE

DECEMBER 31, 1974

SURVEY OF ROCK SOURCES

Procedure for Rock Survey

The method employed by the project in a survey of possible sources of rock for highway construction is divided into two main stages: office and field investigations.

The office investigation is conducted during the winter months and comprises the mapping and description of rock types perused from many reference sources, as acknowledged in the bibliography. These references differ considerably in dependability due to subsequent developments and studies that have contributed to the obsolescence of a number of reports. The results of samples taken by other individuals are analyzed, and their location is mapped when possible. As complete a correlation as possible is made of the available geological information concerning the area under consideration.

The field investigation is begun by making a cursory survey of the entire town. The information obtained from the preliminary survey, and that from the office investigation, is used to determine where sampling will be concentrated. When a promising source has been determined by rock type, volume of material, accessibility, adequate exposure and relief, chip samples are taken with a hammer across the strike or trend of the rock, and are submitted to the Materials & Research Division for abrasion testing by the Deval Method (AASHTO T-3) and the Los Angeles Method (AASHTO T-96). Samples taken by the chip method are often within the weathered zone of the outcrop and thus may give a less satisfactory test result than fresh material from unweathered rock. When the rock is uniform, and the chip samples yield acceptable abrasion test results, the material source is listed in this report as being satisfactory.

DISCUSSION OF ROCK AND ROCK SOURCES

The information on the Rock Materials Map (Plate II) is simplified. For a more detailed description of the respective rock formations, see the Summary of Rock Formations included in this report.

Occasionally, rocks belonging to the same formation and exhibiting similar characteristics (i.e., color and texture) produce different abrasion test results due to differing physical properties or chemical compositions. Therefore, in no case should satisfactory test results obtained in one area be construed to mean that the same formation, even in the same area, will not later produce unsatisfactory materials; this is particularly true of metamorphic rocks.

Metamorphic rocks of the Green Mountain Sequence underlie the town. Rocks of the Hazens Notch Formation occupy the western third of town. To the east, the rocks are from the Ottauquechee Formation. This becomes mixed with the Stowe Formation. The northeastern corner is occupied by the Missisquoi Formation (Umbrella Hill and Moretown members).

The schists and phyllites found in the Ottauquechee, Stowe and Missisquoi formations are generally inadequate for construction purposes. However, the Stowe Formation greenstone and amphibolite is usually of better quality and was tested at Map Identification No. 1. This yielded satisfactory results and is probably the best source in town.

The Hazens Notch schist, quartzite, gneiss has yielded satisfactory results elsewhere in the state and a possible site was located on the east side of Town Highway No. 6 just south of the TH 6 and TH 36. However, no samples were taken and further investigation would be necessary to determine the rock quality at this site.

SURVEY OF SAND AND GRAVEL SOURCES

Procedure for Sand and Gravel Survey

The method used for conducting the survey of possible sources of sand and gravel for highway construction is divided into two main stages: office and field investigations.

The office investigation is conducted during the winter months and comprises the mapping of potentially productive areas from various references. Of these references, the survey of glacial deposits mapped by Professor Stewart is particularly helpful when used with soil-type maps, aerial photographs, and United States Geological Survey Quadrangles. The last two are used in the recognition and location of physiographic features indicating glacial deposits, and in the study of drainage patterns. The locations of existing pits are mapped, as are the locations in which samples were taken by other individuals.

The field investigation is begun by making a cursory survey of the entire town. All pits, and any areas that show evidence of glacial or fluvial deposition are noted, and later investigated by obtaining samples from pit faces and other exposed surfaces. Test holes in pit floors and extensions are later dug with a backhoe to a depth of approximately 11 feet to obtain material which is submitted to the Materials & Research Division for gradation, sieve analysis and AASHTO T-4 Method stone abrasion test.

DISCUSSION OF SAND AND GRAVEL DEPOSITS

Granular material in the town of Hyde Park is quite abundant. It is primarily of glaciofluvial origin in the eastern part of town and lacustrine in the western part of town. The glaciofluvial gravels are mainly located around the Green River Reservoir to Garfield Village and continuing southward to the town line. The gravel is generally of excellent quality. The largest owner of this material is Morrisville Water and Light Co., holding vast reserves at Area #19, plus lesser quantities at Areas #25, #26, #31, #33, and #34. Unfortunately, they have no intention of selling granular material, eliminating it from the market.

The most available quality sources are found at Areas #41, #46, and #49. Gravel was also found (in order of availability & abundance) at Areas #7, #8, #50, #6, #47, #43, #38, #45, #51, #21, #48, #20, #23, #9, #10, #40, #4, #2, #5, #44, #1, #22, #35, and #36. Of these, there are existing pits at Areas #2, #6, #7, #8, #9, #10, #22, #38, #40, and #44.

Quality sand is found at many locations throughout the town, the best sources being Areas #41 and #49. Other acceptable sources (in order of availability and abundance) are Areas #42, #16, #12, #47, #43, #38, #51, #10, #9, #11, #20, #32, #6, #13, #17, #24, #4, #22, #39, #1, and #3. Of these, there are existing pits at Areas #3, #6, #9, #10, #11, #12, #13, #16, #17, #22, #24, #32, #38, #39, and #42.

SUMMARY OF ROCK FORMATIONS IN THE TOWN OF HYDE PARK

Green Mountain Sequence

Hazens Notch Formation: Interbedded carbonaceous and noncarbonaceous quartz-sericite-albite-chlorite schist; grades to quartzite and gneiss.

Missisquoi Formation (Moretown Member): Quartzite and quart-plagioclase granulite in layers one-eighth inch to several inches thick, separated by pinstripe partings that contain muscovite, chlorite, epidote, biotite, and locally garnet; also greenish quartz-sericite-chlorite phyllite and schist, and minor carbonaceous phyllite.

Ottauquechee Formation: Black carbonaceous phyllite or schist containing interbeds of massive quartzite commonly criss-crossed by veins of white quartz; quartzite is dark gray and carbonaceous, light gray, or white; also includes light green quartz-sericite-chlorite phyllite or schist and sericitic quartzite.

Stowe Formation: Quartz-sericite (muscovite-paragonite) - chlorite phyllite and schist; porphyroblasts of albite, garnet, chloritoid, or kyanite are common locally; includes phyllitic graywacke north of Lamoille River. Schist contains abundant segregations of granular white quartz.

Stowe Formation: Greenstone and amphibolite.

GLOSSARY OF SELECTED GEOLOGIC TERMS

Actinolite: A variety of amphibole occurring in greenish-bladed crystals or in masses.

Albite: The light-colored, sodium end-member of the continuous plagioclase feldspar series which is found in alkali rocks. The name is often compounded with the names of rocks containing the mineral.

Alluvial: Pertaining to material carried or laid down by running water.

Amphibolite: A green-to-black, schistose, metamorphic rock consisting mostly of amphibole (i.e., tremolite, actinolite, hornblende, or arfvedsonite).

Argillaceous: Containing or consisting of clay. The term is commonly combined with rock names to indicate the presence of clay; as, argillaceous limestone, argillaceous sandstone.

Bedding: The arrangement of rock or soil in layer, strata, or beds.

Bedrock: The more or less solid, undisturbed rock in place at the surface, or beneath superficial deposits of gravel, sand, or soil.

Biotite: A platy, dark silicate mineral known as black mica.

Carbonaceous: Containing carbon.

Chlorite: A group of green hydrous silicates of aluminum, ferrous iron, and magnesium which occur as plate-like crystals or sclaes in metamorphic rocks.

Conglomerate: The consolidated equivalent of gravel. There may be considerable range in the size and composition of constituent fragments. The finer material between the larger fragments may be fine particulate matter or a natural cement such as calcium carbonate, clay, iron oxide, or silica.

Cross-bedding: A diagonal arrangement of beds in sedimentary rocks where the layers are inclined at various angles to the more general planes of stratification or the formational contact. Sand dunes, river channels, and delta show extensive cross-bedding.

Delta: A predominantly alluvial deposit built by a stream entering a standing body of water. It usually is formed like the Greek letter delta.

Deltaic: Relating to alluvial deposits built by a stream entering a standing body of water. Deltas are formed like the Greek letter delta.

Drainage: The manner in which the water of an area passes off by surface streams and rivers, or by subsurface channels.

Drainage basin: A part of the surface of the earth that is occupied by a drainage system, or that contributes surface water to the system.

Esker: Relatively long, narrow, winding ridge of mixed sand and gravel. They are considered to have been deposited by streams of melt-water flowing through crevasses and tunnels in the stagnant ice sheets.

Fluvial: Pertaining to streams.

Foliation: The banding or lamination of metamorphic rocks as constrasted to the stratification of sediments. Foliation implies the ability to split along nearly parallel surfaces due to the parallel distribution of layers or lines of one or more conspicuous minerals in the rock. The layers may be smooth, flat, undulating, or strongly crumpled.

Garnet: An important group of silicate minerals which contain aluminum, calcium, chromium, ferric and ferrous iron, magnesium, and manganese. Garnets are commonly deep red, brown, or black, but may be any color except possibly blue,

Gneiss: A metamorphic rock with alternate bands of light minerals (rich in feldspar and quartz), and dark minerals (rich in hornblende and mica).

Gneissic: Having the banded, streaked,and foliated appearance and texture of gneiss, which is a more or less banded metamorphic rock having the mineral composition of granite.

Graywacke: Dark, hard sandstone having angular grains of quartz and feldspar in a matrix of micas, chlorite, and clay minerals.

Greenstone: A field term for metamorphic rocks which have a distinctive color due to chlorite, epidote, or actinolite. It is usually derived from dark igneous rocks and is tough and hard. It is crushed to form good-to-excellent aggregate.

Interbeds: Occur between, or lie adjacent and parallel to, other beds of usually a different nature.

Kame: A conical hill of generally poorly stratified drift deposited against glacial ice by streams flowing in or on the ice.

Kame Moraine: An accumulation of material deposited directly from the frontal portion of glacial ice, and partly sorted by water. The deposits may form as coalescent knolls, hymmocks, ridges, etc.

Kame Terrace: Stratified sands and gravels deposited by streams flowing between a glacier and an adjacent valley wall.

Kettle hole: A depression found in glacial drift believed to have originated when a block of ice, left isolated by general melting away of a glacier, is partly buried by sediments and later melts entirely away. Kettle holes are usually undrained and the larger ones may contain lakes and ponds.

Kyanite: A blue, aluminum silicate mineral which occurs as thin-bladed crystals, or crystalline aggregates in metamorphic rocks.

Metamorphic Rocks: Rocks formed from pre-existing rocks altered by heat, pressure, or the infiltration of gases and liquids below the zones of oxidation and cementation. Metamorphic rocks are formed in place while remaining essentially solid.

Mica: Any tabular, rock-forming minerals having perfect cleavage in one direction which yields thin, tough, elastic flakes.

Muscovite: An important member of the mica group of silicate minerals; also known as white mica, potash mica, or isinglass.

Phyllite: A fine-grained, metamorphic rock intermediate between the mica schists and slates, into which it may grade. Its cleavage is due to the high content of the potash mica, sericite, which gives the rock a distinctive silvery appearance. Its fracture is intermediate between the rather splintery fissility of schist, and the smooth, even cleavage of slate; however, phyllite is not as tough as slate.

Phyllitic: Pertaining to fine-grained, foliated metamorphic rock intermediate between the mica schists and slates, into which it may grade. Cleavage is due to the large amount of potash mica sericite.

Physiographic: Pertaining to the physical divisions of the earth's surface.

Piedmont: Lying, or formed at the base of mountains.

Porphyroblasts: Large crystals which have formed in place within the fine-grained matrix of a metamorphic rock. They are produced by heat, pressure, and infiltrating solutions in pre-existing rocks.

Quartz: The most common mineral (SiO_2). It is transparent, translucent, opaque, or variously colored due to impurities, and occurs as hexagonal crystals or amorphous masses.

Quartzite: The common, siliceous, metamorphic equivalent of sandstone composed of quartz grains so firmly bonded that fractures occur with equal ease across both grains and cement.

Relief: The relative difference in elevation between the summits and the lowlands of a particular region.

Schist: A crystalline, metamorphic rock having secondary foliation or lamination based on the parallelism of platy or needle-like grains which causes a tendency to split along the foliation.

Schistose: Pertaining to schist.

Sediments: All materials deposited from the waters of streams, lakes, seas, or more generally, deposited by wind or ice.

Segregation: The concentration of one or more minerals together during crystallization of molten rock in place.

Sericite: A metamorphic mineral (very similar to muscovite) which occurs as minute flakes or scales in schists, gneisses, and phyllites.

Slate: The homogeneous, metamorphic equivalent of shale. It is so fine-grained that no mineral grains can be seen, and splits with a foliation so perfect that it yields slabs having smooth, plane surfaces.

Strike: The direction of a line formed by the intersection of a layer with the horizontal.

Syncline: A fold of rock strata that is concave upward, in which younger formations occur toward the center of curvature.

Talus: A heap of rock fragments derived from, and lying at the base of, a cliff or very steep slope. The fragments may be large or small. The aggregate heap usually has its form determined by gravity and the angle of rest of the material.

Till: An unsorted, unstratified, unconsolidated, heterogeneous mixture of clay, silt, sand, gravel, and boulders deposited directly by glacial ice.

Water Table: The upper limit of the portion of the ground which is wholly saturated with water.

Weathered: Showing the effects of exposure to the atmosphere.

Hyde Park
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PARTIAL SPECIFICATIONS FOR HIGHWAY CONSTRUCTION MATERIALS

Listed below are partial specifications for Highway Construction Materials as they apply to this report at date of publication. For a complete list of specifications see Standard Specifications for Highway and Bridge Construction, approved and adopted by the Vermont Department of Highways, March, 1976.

DIVISION 700 - MATERIALS

703.03 SAND BORROW AND CUSHION. Sand borrow shall consist of material reasonably free from silt, loam, clay, or organic matter. It shall be obtained from approved sources and shall meet the requirements of the following table:

TABLE 703.03A - SAND BORROW AND CUSHION

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves TOTAL SAMPLE	SAND PORTION
2"	100	
1½"	90-100	
½"	70-100	
No. 4	60-100	100
No. 100		0- 30
No. 200		0- 12

703.05 GRANULAR BORROW. Granular borrow shall be obtained from approved sources, consisting of satisfactorily graded, free draining, hard, durable stone and coarse sand reasonably free from loam, silt, clay, or organic material.

The Granular Borrow shall meet the requirements of the following table:

TABLE 703.05A - GRANULAR BORROW

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves TOTAL SAMPLE	SAND PORTION
No. 4	20-100	100
No. 200		0- 15

The maximum size stone particles of the Granular Borrow shall not exceed 2/3 of the thickness of the layer being spread.

704.05 GRAVEL FOR SUB-BASE. Gravel for Sub-base shall consist of material reasonably free from silt, loam, clay, or organic matter. It shall be obtained from approved sources and shall meet the following requirements:

(a) Grading. The gravel shall meet the requirements of the following table:

TABLE 704.05A - GRAVEL FOR SUB-BASE

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves TOTAL SAMPLE	SAND PORTION
No. 4	20-60	100
No. 100		0- 18
No. 200		0- 8

The stone portion of the gravel shall be uniformly graded from coarse to fine, and the maximum size stone particles shall not exceed 2/3 the thickness of the layer being placed.

(b) Percent of Wear. The percent of wear of the gravel shall be not more than 25 when tested in accordance with AASHTO T-4, or more than 40 when tested in accordance with AASHTO T-96.

704.06 CRUSHED STONE FOR SUB-BASE. Crushed stone for sub-base shall consist of clean, hard, crushed stone, uniformly graded, reasonably free from dirt, deleterious material, pieces which are structurally weak and shall meet the following requirements:

(a) Source. This material shall be obtained from approved sources and the area from which this material is obtained shall be stripped and cleaned before blasting.

(b) Grading. This material shall meet the requirements of the following table:

TABLE 704.06A - CRUSHED STONE FOR SUB-BASE

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves TOTAL SAMPLE
4½"	100
4"	90-100
1½"	25- 50
No. 4	0- 15

(c) Percent of Wear. The percent of wear of the parent rock shall be not more than 8 when tested in accordance with AASHTO T-3, or the crushed stone a percent of wear of not more than 40 when tested in accordance with AASHTO T-96.

(d) Thin and Elongated Pieces. Not more than 30 percent, by weight, of thin and elongated pieces will be permitted.

Thin and elongated pieces will be determined on the material coarser than the No. 4 sieve.

(e) Filler. The filler shall be obtained from approved sources and shall meet the requirements as set up for Sand Cushion, Subsection 703.03.

(f) Leveling Material. The leveling material shall be obtained from approved sources and may be either crushed gravel or stone screening produced by the crushing process. The material shall consist of hard durable particles, reasonably free from silt, loam, clay or organic matter.

This material shall meet the requirements of the following table:

TABLE 704.06B - LEVELING MATERIAL

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves TOTAL SAMPLE
3/4"	100
1/2"	70-100
No. 4	50- 90
No. 100	0- 20
No. 200	0- 10

704.07 CRUSHED GRAVEL FOR SUB-BASE. Crushed gravel for sub-base shall consist of material reasonably free from silt, loam, clay or organic matter. It shall be obtained from approved sources and shall meet the following requirements:

(a) Grading. The crushed gravel shall be uniformly graded from coarse to fine and shall meet the requirements of the following table:

TABLE 704.07A - CRUSHED GRAVEL FOR SUB-BASE

GRADING	Sieve Designation	Percentage by Weight Passing Square Mesh Sieves TOTAL SAMPLE	SAND PORTION
COARSE	4"	100	
	No. 4	25- 50	100
	No. 100		0- 20
	No. 200		0- 12
FINE	2"	100	
	1½"	90-100	
	No. 4	30- 60	100
	No. 100		0- 20
	No. 200		0- 12

(b) Percent of Wear. The percent of wear of the parent gravel shall be not more than 20 when tested in accordance with AASHTO T-4, or the crushed gravel a percent of wear of not more than 35 when tested in accordance with AASHTO T-96.

(c) Fractured Faces. At least 30 percent, by weight, of the stone content shall have at least one fractured face.

Fractured faces will be determined on the material coarser than the No. 4 sieve.

704.09 DENSE GRADED CRUSHED STONE FOR SUB-BASE. Dense graded crushed stone for sub-base shall consist of clean, hard, crushed stone, uniformly graded, reasonably free from dirt, deleterious material and pieces which are structurally weak, and shall meet the following requirements:

(a) Source. This material shall be obtained from approved sources and the area from which this material is obtained shall be stripped and cleaned before blasting.

(b) Grading. This material shall meet the requirements of the following table:

TABLE 704.09A - DENSE GRADED CRUSHED STONE FOR SUB-BASE

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves TOTAL SAMPLE
3½"	100
3"	90-100
2"	75-100
1"	50- 80
½"	30- 60
No. 4	15- 40
No. 200	0- 10

(c) Percent of Wear. The percent of wear of the parent rock shall be not more than 8 when tested in accordance with AASHTO T-3, or the crushed stone a percent of wear of not more than 40 when tested in accordance with AASHTO T-96.

(d) Thin and Elongated Pieces. Not more than 30 percent, by weight, of thin or elongated pieces will be permitted.

Thin and elongated pieces will be determined on the material coarser than the No. 4 sieve.

704.10 GRAVEL BACKFILL FOR SLOPE STABILIZATION. Gravel backfill for slope stabilization shall be obtained from approved sources, consisting of satisfactorily graded, free draining, hard, durable stone and coarse sand reasonably free from loam,

silt, clay, and organic material.

The gravel backfill shall meet the requirements of the following table:

TABLE 704.10A - GRAVEL BACKFILL FOR SLOPE STABILIZATION

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves TOTAL SAMPLE	SAND PORTION
No. 4	20-50	100
No. 100		0- 20
No. 200		0- 10

The stone portion of the gravel backfill shall be uniformly graded from coarse to fine, and the maximum size stone particles shall not exceed 2/3 the thickness of the layer being placed.

704.11 GRANULAR BACKFILL FOR STRUCTURES. Granular backfill for structures shall be obtained from approved sources, consisting of satisfactorily graded, free draining granular material reasonably free from loam, silt, clay, and organic material.

The granular backfill shall meet the requirements of the following table:

TABLE 704.11A - GRANULAR BACKFILL FOR STRUCTURES

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves TOTAL SAMPLE	SAND PORTION
3"	100	
2½"	90-100	
No. 4	50-100	100
No. 100		0- 18
No. 200		0- 8

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STATE OF VERMONT
AGENCY OF TRANSPORTATION
MATERIALS & RESEARCH DIVISION - GEOLOGY SUB-DIVISION

HYDE PARK GRANULAR DATA SHEET NO. 1

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing						Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
						2"	1 1/2"	1/2"	#4	#100	#200			
1	1	1981	1'-5'	0'-1'	No	100	100	100	97	65	26	-	-	Owner: Bullard Lumber Co. Area is a flat field along the Gihon River which is used as a tree nursery. The area is 0.34 miles north-west of Town Highway No.78. The access is 0.85 miles north of the junction of T.H. 78 and State Aide Highway No. 3. Test No. 1 was taken in the clearing on the south side of the road at the east end of the access road. The material is: 0'-1', over-burden; 1'-5', silty fine sand; bottom, ledge or boulder.
	2	1981	2.5'-12'	0'-2.5'	No	72	59	38	27	22	16	28.0%	-	Test No. 2 was taken in the small clearing west of the access road, 115' S 60° W of the junction of access roads. The material is: 0'-2.5', overburden; 2.5'-6', very coarse gravel; 6'-12',coarse gravel; bottom, coarse gravel

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HYDE PARK GRANULAR DATA SHEET NO. 2

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	3	1981	3'-12'	0'-3'	No	87	79	55	43	14	10	19.0%	Granular Borrow (gravel)	Test No. 3 was taken to the west of the access road near the north end of the nursery. The material is: 0'-3', overburden; 3'-12', silty, very coarse gravel; bottom, silty, very coarse gravel.
	4	1981	2'-9'	0'-2'	No	91	82	59	44	8	5	27.4%	Granular Borrow (gravel)	Test No. 4 was taken in the clearing near the loading ramp, 300' S 45° W of Test No. 2. The material is: 0'-2', overburden; 2'-9', silty gravel; bottom, sandy silt.
	5	1981	2'-9'	0'-2'	No	100	95	80	71	12	8	18.7%	Sand Cushion & Borrow	Test No. 5 was taken in the clearing 460' S 15° W of Test No. 4. The material is: 0'-2', overburden; 2'-3.5', gravel; 3.5'-4', sand; 4'-6', gravel; 6'-7', pebbly sand; 7'-9', fine gravel; bottom, sand.
	6	1981	2'-12'	0'-2'	No	82	77	66	53	8	5	27.0%	Granular Borrow (gravel)	Test No. 6 was taken in the clearing to the west of the access road, 310' S 20° W of Test No. 5. The material is: 0'-2', overburden; 2'-12', gravel; bottom, gravel.

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HYDE PARK GRANULAR DATA SHEET NO. 3

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	7	1981	2.5'-12'	0'-2.5'	No	88	81	52	34	13	8	18.1%	Gravel	Test No. 7 was taken 390' S 35° W of Test No. 6. The material is: 0'-2.5', overburden; 2.5'-12', gravel; bottom, silt. All of the gravel found in the area was made up of flat, tabular stone, which generally has poor wears.
2	1	1981	1'-4'	0'-1'	Yes	100	100	100	100	85	33	-	-	Owner: Bullard Lumber Co. Area is a small pit in the west side of a knoll along the east side of Town Highway No. 78. The area is 0.66 mile north of the junction of TH 78 and State Aide No.3. Test No. 1 was taken in the south floor of the pit. The material is: 0'-1', overburden; 1'-4', silty, fine sand; bottom, silt.
	2	1981	1'-4'	0'-1'	Yes	100	100	100	100	87	45	-	-	Test No. 2 was taken in the north floor of the pit, 240' N 5° W of Test No. 1. The material is: 0'-1', overburden; 1'-4', silty fine sand; bottom, silt.

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HYDE PARK GRANULAR DATA SHEET NO. 4

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	3	1981	1'-8'	0'-1'	Yes	92	83	63	48	5	3	10.8%	Gravel	Test No. 3 was taken on the north face of the pit, 10' E of test No. 2. The material is:0'-1', overburden; 1'-8', fine gravel; bottom, silty fine sand.
	4	1981	1'-8'	0'-1'	Yes	90	85	73	58	5	3	12.1%	Gravel	Test No. 4 was taken on the southeast face of the pit, 10' E of Test No. 1. The material is: 0'-1', overburden; 1'-4.5', gravel; 4.5'-8', pebbly sand; bottom, silty fine sand.
3	1	1981	2'-6'	0'-2'	Yes	100	90	82	61	7	4	-	Sand Cushion & Borrow	Owner: Marjorie Heath. Area is a small, water-filled pit in the woods along the east side of Town Highway No. 78, 0.53 mile north of the junction of TH 78 and State Aide Highway No. 3 Test No. 1 was taken on the northeast face of the pit. The material is: 0'-2', overburden; 2'-6', pebbly fine gravel; bottom, sloughed material.

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HYDE PARK GRANULAR DATA SHEET NO. 5

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
4	1	1981	2'-10'	0'-2'	No	95	83	60	42	13	8	24.8%	Gravel	Owner: Marvin Locke. Area is a small pasture along the west side of Vermont Route 100 immediately north of the North Hyde Park Fire Station, 0.26 mile north of the junction of Vt. Rte. 100 and State Aide Highway No. 3. Test No. 1 was taken 140' N 20° E of the northwest corner of the fire station. The material is: 0'-2', overburden; 2'-10', gravel; bottom, gravel.
	2A	1981	6'-10'	-	No	100	100	89	84	5	3	-	Sand Cushion & Borrow	Test No. 2A was taken atop the knoll 150' N 5° W of Test No. 1. The material is: 0'-1', overburden; 1'-6', interbedded gravel and pebbly fine gravel; bottom, sand (Test No. 2B).

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HYDE PARK GRANULAR DATA SHEET NO. 6

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	2B	1981	6'-10'	-	No	100	100	89	84	5	3	-	Sand Cushion & Borrow	Test No. 2B was taken below Test No. 2A. The material is: 6'-10', sand; bottom, sand.
5	1	1981	1'-10'	0'-1'	No	89	83	53	38	15	10	22.2%	Granular Borrow (gravel)	Owner: Marvin Locke. Area is a large, terrace-like cornfield between Vermont Route 100 and the Gihon River. The area is on the east side of Vt. Rte. 100, 0.20 mile north of the junction of Vt. Rte. 100 and State Aide Highway No. 3. Test No. 1 was taken at the south end of the cornfield. The material is: 0'-1', overburden; 1'-10', coarse gravel; bottom, coarse gravel.
	2	1981	1'-10'	0'-1'	No	85	73	60	48	12	7	29.8%	Granular Borrow (gravel)	Test No. 2 was taken 500' N 70° E of Test No. 1. The material is: 0'-1', overburden; 1'-10', coarse gravel; bottom, coarse gravel.

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HYDE PARK GRANULAR DATA SHEET NO. 7

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	3	1981	1'-10'	0'-1'	No	87	69	52	41	13	8	24.8%	Gravel	Test No. 3 was taken 550'N 20° E of Test No. 2. The material is: 0'-1', overburden; 1'-10', very coarse gravel; bottom, very coarse gravel.
	4	1981	1'-10'	0'-1'	No	75	61	39	29	22	13	28.9%	Granular Borrow (gravel)	Test No. 4 was taken in the north corner of the field, 600' N 5° W of Test No. 3. The material is: 0'-1', overburden; 1'-10', very coarse gravel; bottom, very coarse gravel.
	5	1981	1'-10'	0'-1'	No	90	76	51	36	14	10	24.3%	Granular Borrow (gravel)	Test No. 5 was taken 700' S 30° W of Test No. 4. The material is: 0'-1', overburden; 1'-10', coarse gravel; bottom, coarse gravel.
	6	1981	1'-10'	0'-1'	No	94	80	54	37	10	6	23.9%	Gravel	Test No. 6 was taken 300' N 80° W of Test No. 5. The material is: 0'-1', overburden; 1'-10', gravel; bottom, gravel.
6	1	1981	2'-15'	0'-2'	Yes	96	83	52	38	8	5	22.3%	Gravel	Owner: Robert Jones. Area is a partially overgrown pit complex, 350' S of Town Highway No. 23 (Class 4). The access is 0.18 mile west of the junction of TH 23 and

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HYDE PARK GRANULAR DATA SHEET NO. 8

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														State Aide Highway No. 3. The southern extreme has been used as a trash dump. The area seems to have some reserves for future use.
														Test No. 1 was taken on the southeast face of the active (central) lobe of the pit. The material is: 0'-2' overburden; 2'-6', fine gravel; 6'-15', gravel and coarse gravel; bottom, sloughed material.
	2A	1981	1'-12'	0'-1'	Yes	93	87	76	53	9	5	26.1%	Granular Borrow (gravel)	Test No. 2A was taken on the upper northeast face in the overgrown lobe northeast of the pit. The material is: 0'-1', overburden; 1'-4' pebbly fine gravel; 4'-10', pebbles, 10'-12', gravel; bottom, gravel.
	2B	1981	12'-18'	-	Yes	100	97	71	45	5	3	20.7%	Gravel	Test No. 2B was taken below Test No. 2A. The material is:12'-18', gravel; bottom, sloughed material.

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HYDE PARK GRANULAR DATA SHEET NO. 9

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	3	1981	1'-7'	0'-1'	Yes	100	100	100	94	4	2	-	Sand Cushion & Borrow	Test No. 3 was taken on the southeast face of the low northeast lobe of the pit. The material is: 0'-1', overburden; 1'-4', pebbly sand; 4'-5', sand with 3" cobbles; 5'-7', sand; bottom, sloughed material.
	4	1981	1'-6'	0'-1'	Yes	95	95	81	63	5	3	21.8%	Granular Borrow (gravel)	Test No. 4 was taken on the low northface in the south lobe of the pit. The material is: 0'-1', overburden; 1'-6', pebbly fine gravel; bottom, sloughed material.
	5	1981	1'-4'	0'-1'	Yes	100	100	100	63	41	29	-	-	Test No. 5 was taken in the floor of the lowest level 30' S 10° W of Test No. 4. The material is: 0'-1', overburden; 1'-4', angular fragments; bottom, silt.
	6	1981	0.5'-3.5'	0'-0.5'	Yes	100	100	100	61	23	15	-	Granular Borrow (gravel)	Test No. 6 was taken in the south floor of the southeast lobe of the middle pit. The material is: 0'-0.5', overburden; 0.5'-3.5', angular fragments; bottom, ledge or boulder.

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HYDE PARK GRANULAR DATA SHEET NO. 10

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	7	1981	0'-7'	-	Yes	100	100	96	90	7	4	-	Sand Cushion & Borrow	Test No. 7 was taken in the middle floor, 50' N 10° W of Test No. 4. The material is: 0'-3', pebbly sand 3'-4', fine gravel; 4'-7', sand; bottom, ledge or boulder.
	8	1981	0'-3'	-	Yes	100	100	100	56	29	20	-	-	Test No. 8 was taken in the floor of the upper east lobe of the pit. The material is: 0'-1', fine gravel; 1'-3', silt; bottom, ledge or boulder.
	9	1981	0.5'-4.5'	0'-0.5'	No	73	68	60	50	25	11	-	Granular Borrow (sand)	Test No. 9 was taken in the clearing near the junction of access roads, 160' N 50° W of Test No. 8. The material is: 0'-0.5', overburden; 0.5'-2.5', sand; 2.5'-4.5', gravel; bottom, silt, angular fragments and water.
7	1	1981	0.5'-8'	0'-0.5'	Yes	87	81	64	45	9	6	23.9%	Gravel	Owner: Melvin and Kenneth Harvey. Area is a large pit on a steep hillside 0.10 mile west of State Aide Highway No. 3. The access is 0.39 mile south of the junction of S.A. 3 and Town

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HYDE PARK GRANULAR DATA SHEET NO. 11

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Highway No. 10. The pit has reached, and in some areas exceeded, the limits of the property (see map Ident. No. 8). There may be some extension in the pasture to the north but material appears silt-clay coated. The best extension is to go deeper.
														Test No. 1 was taken on the face near the southwest corner of the pasture. The material is: 0'-0.5', overburden; 0.5'-3.5', pebbly fine gravel; 3.5'-4.5', cobbles; 4.5'-8', gravel; bottom, sloughed material.
	2A	1981	0.5'-8'	0'-0.5'	Yes	88	85	56	27	10	6	24.1%	Gravel	Test No. 2A was taken on the northeast face of the small upper lobe of the main face. The material is: 0'-0.5', overburden; 0.5'-8', silty gravel; bottom, sloughed material.
	2B	1981	16'-28'	-	Yes	86	86	61	37	5	3	22.9%	Gravel	Test No. 2B was taken below Test No. 2A. The material is: 16'-28' silty gravel; bottom, silty gravel (test No. 2C).

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HYDE PARK GRANULAR DATA SHEET NO. 12

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	2C	1981	28'-38'	-	Yes	75	67	42	28	4	2	23.6%	Gravel	Test No. 2C was taken below Test No. 2B. The material is: 28'-38', silty gravel; bottom, sloughed material.
	3	1981	0'-12'	-	Yes	92	92	73	49	8	5	21.0%	Gravel	Test No. 3 was taken in the floor at the north end of the lowest level of the pit. The material is: 0'-12', gravel; bottom, gravel.
	4	1981	0.5'-12'	0'-0.5'	Yes	92	92	69	47	8	5	24.2%	Gravel	Test No. 4 was taken in the floor, 190' S 15° W of Test No. 3. The material is: 0'-0.5', overburden; 0.5'-12', gravel; bottom, gravel.
	5	1981	0.5'-12'	0'-0.5'	Yes	93	89	72	59	18	10	23.6%	Granular Borrow (gravel)	Test No. 5 was taken in the floor of the small, upper northwest level of the pit. The material is: 0'-0.5', overburden; 0.5'-2', pebbly sand; 2'-3', silty fine sand; 3'-4', pebbly fine gravel; 4'-5', pebbly sand; 5'-12', gravel, bottom, gravel.
	6	1981	0'-12'	-	Yes	100	96	71	58	11	7	19.7%	Gravel	Test No. 6 was taken in the floor of the upper north level of the pit, 105' N 45° E of Test No. 5. The material is: 3'-7', pebbly sand;

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HYDE PARK GRANULAR DATA SHEET NO. 13

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														7'-12', gravel; bottom, gravel.
8	1	1981	11'-33'	0'-2'	Yes	89	89	66	37	13	10	30.0%	Granular Borrow (gravel)	Owner: Robert Jones. Area is a large 2-section pit bordered on the north by Map Ident. No. 7 and on the southwest by Map Ident. No. 9. The access is a 0.35 mile long winding road going east from Town Highway No.26 The access is 0.82 mile south of the junction of TH 26 and TH 8. Test No. 1 was taken on the face in the southeast corner of the pit. The material is: 0'-2', overburden; 2'-11', gravel (inaccessible vertical face); 11'-33', coarse gravel; bottom, sloughed material. This area would be a good place for a crusher.
	2A	1981	28'-40'	0'-3'	Yes	92	85	63	41	11	7	28.2	Granular Borrow (gravel)	Test No. 2A was taken on the middle of the spur in the east face of the pit. The material is: 0'-3', overburden; 3'-28', coarse gravel (inaccessible vertical face); 28'-40',

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HYDE PARK GRANULAR DATA SHEET NO. 14

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														silty gravel; bottom, silty gravel (Test No. 2B).
	2B	1981	40'-51'	-	Yes	95	91	70	48	11	8	22.1%	Gravel	Test No. 2B was taken below Test No. 2A. The material is: 40'-51', silty gravel; bottom, large boulders.
	3A	1981	25'-36'	0'-3'	Yes	90	79	53	29	15	12	24.5%	Granular Borrow (gravel)	Test No. 3A was taken on the spur on the northeast face of the pit. The material is: 0'-3', overburden; 3'-25', silty gravel (inaccessible vertical face); 25'-36', silty gravel; bottom, gravel (Test No. 3B).
	3B	1981	36'-42'	-	Yes	94	81	46	21	14	8	23.9%	Gravel	Test No. 3B was taken below Test No. 3A. The material is: 36'-42', silty gravel; bottom, sloughed material.
	4	1981	0'-10'	-	Yes	94	91	70	40	11	8	24.0%	Gravel	Test No. 4 was taken on the face in the south corner of the upper (north) pit. The material is: 0'-10', silty fine gravel; bottom, sloughed material.

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HYDE PARK GRANULAR DATA SHEET NO. 15

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	5	1981	0.5'-11'	0'-0.5'	Yes	100	100	96	87	27	13	-	Granular Borrow (sand)	Test No. 5 was taken on the southeast face of the upper (north) pit, 65' S 85° E of Test No. 4. The material is: 0'-0.5', over-burden; 0.5'-4', silty sand; 4'-11', pebbly silty sand; bottom, sloughed material.
	6A	1981	2'-13'	0'-2'	Yes	93	78	56	30	7	4	22.3%	Gravel	Test No. 6A was taken on the northeast face of the upper (north) pit, 175' N 25° E of Test No. 4. The material is: 0'-2', over-burden; 2'-13', silty grav-el; bottom, silty fine grav-el (Test No. 6B).
	6B	1981	13'-22'	-	Yes	96	90	79	53	5	3	25.3%	Granular Borrow (gravel)	Test No. 6B was taken below Test No. 6A. The material is: 13'-22', silty fine gravel; bottom, sloughed material.
	7	1981	1'-5'	0'-1'	Yes	83	67	55	37	26	17	26.2%	-	Test No. 7 was taken in the floor in the south end of the lower (south) pit. The material is: 0'-1', over-burden; 1'-5', silty coarse gravel; bottom, silt and water.

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HYDE PARK GRANULAR DATA SHEET NO. 16

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	8	1981	1 '-10'	0'-1'	Yes	85	73	60	36	17	11	23.8%	Granular Borrow (gravel)	Test No. 8 was taken in the floor of the upper (north) pit, 30' S 85° E of Test No. 4. The material is: 0'-1', overburden: 1'-2', fine gravel; 2'-4', coarse gravel; 4'-10', gravel; bottom, gravel
	9	1981	1'-12'	0'-1'	Yes	96	88	66	41	9	6	22.3%	Gravel	Test No. 9 was taken in the north floor of the upper (north) pit, 160' N 10° E of Test No. 8. The material is: 0'-1', overburden; 1'-7.5', pebbly fine gravel; 7.5'-12', gravel; bottom, gravel.
9	1A	1981	2'-9'	0'-2'	Yes	94	94	82	64	13	8	27.6%	Granular Borrow (gravel)	Owner: Fred Parot. Area is the three northern-most pits in a series of pits along the west side of State Aide Highway No. 3. They are overgrown pits on wooded knolls 0.20 mile northwest of the junction of the access road and SA 3. The access road is 1.02 miles north of the junction of SA 3 and Town Highway No. 32.

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HYDE PARK GRANULAR DATA SHEET NO. 17

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Test No. 1A was taken on the southwest face of the overgrown north pit. The material is: 0'-2', overburden; 2'-9', pebbly fine gravel to pebbly sand; bottom, pebbly fine gravel (Test No. 1B).
	1B	1981	9'-16'	-	Yes	100	96	88	68	7	4	27.1%	Sand Cushion & Borrow	Test No. 1B was taken below Test No. 1A. The material is: 9'-16', pebbly fine gravel; bottom, sloughed material.
	2A	1981	2'-9'	0'-2'	Yes	100	100	95	93	8	4	-	Sand Cushion & Borrow	Test No. 2A was taken on the northwest face of the overgrown middle pit. The material is: 0'-2', overburden; 2'-9', sand; bottom, gravel (Test No. 2B).
	2B	1981	9'-20'	-	Yes	87	80	60	44	10	5	25.9%	Granular Borrow (gravel)	Test No. 2B was taken below Test No. 2A. The material is: 9'-20', gravel; bottom, silt and stones.
	3A	1981	1'-9'	0'-1'	Yes	96	94	77	53	8	5	27.6%	Granular Borrow (gravel)	Test No. 3A was taken on the north face of the overgrown south pit. The material is: 0'-1', overburden; 1'-8', gravel and pebbly fine gravel; 8'-9', silty fine gravel; bottom, gravel (Test No. 3B.

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	3B	1981	9'-15'	-	Yes	91	79	66	47	8	5	-	Gravel	Test No. 3B was taken below Test No. 3A. The material is: 9'-15', gravel; bottom, sloughed material.
10	1	1981	0.5-9'	0'-0.5'	Yes	100	91	71	51	8	5	25.2%	Granular Borrow (Gravel)	Owner; Fred Parot, Area is the large center pit in a series of pits along the west side of State Aide Highway No. 3. The pit is 0.02 mile west of SA 3, 0.74 mile south of the junction of SA 3 and Town Highway No. 10. Test No. 1 was taken on the north face of the lower south lobe of the pit. The material is: 0'-0.5', overburden; 0.5'-4', pebbly gravel; 4'-5', cobbles; 5'-8', gravel and fine gravel; bottom, sloughed material.
	2	1981	1.5'-7'	0'-1.5'	Yes	100	100	95	85	5	3	-	Sand Cushion & Borrow	Test No. 2A was taken on the south face in the south end of the pit. The material is: 0'-1.5', overburden; 1.5'-7', sand and pebbly sand; bottom, pebbly fine gravel (Test No. 2B).

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HYDE PARK GRANULAR DATA SHEET NO. 19

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	2B	1981	7'-13'	-	Yes	100	100	85	59	8	4	27.7%	Granular Borrow (gravel)	Test No. 2B was taken below Test No. 2A. The material is: 7'-13', pebbly fine gravel; bottom, sloughed material.
	3A	1981	2'-13'	0'-2'	Yes	96	80	60	42	10	5	28.8%	Granular Borrow (gravel)	Test No. 3A was taken on the northwest face of the south part of the pit. The material is: 0'-2', overburden; 2'-13', coarse, silty gravel and boulders; bottom, coarse silty gravel (Test No. 3B)
	3B	1981	13'-24'	-	Yes	94	78	63	39	12	7	25.3%	Granular Borrow (gravel)	Test No. 3B was taken below Test No. 3A. The material is: 13'-24', coarse silty gravel; bottom, sloughed material.
	4A	1981	3'-15'	0'-3'	Yes	81	67	47	32	8	5	28.2%	Granular Borrow (gravel)	Test No. 4A was taken on the northwest face in the north end of the north(upper) pit. The material is: 0'-3', overburden; 3'-15', silty gravel; bottom,gravel (Test No. 4B)
	4B	1981	15'-29'	-	Yes	87	78	64	48	13	8	24.9%	Gravel	Test No. 4B was taken below Test No. 4A. The material is: 15'-29', pebbly fine gravel; bottom, sloughed material.

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HYDE PARK GRANULAR DATA SHEET NO. 20

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	5	1981	0.5'-12'	0'-0.5'	Yes	95	88	62	38	17	10	27.1%	Granular Borrow (Gravel)	Test No. 5 was taken in the floor in the north end of the pit, 25' S 65° E of Test No. 4B. The material is: 0'-0.5', overburden; 0.5'-5', fine gravel; 5'-12', coarse gravel; bottom, coarse gravel.
	6	1981	0'-12'	-	Yes	90	88	68	44	13	9	29.0%	Granular Borrow (gravel)	Test No. 6 was taken in the southwest corner of the middle floor of the pit, 190' S 5° E of Test No. 5. The material is: 0'-12', gravel; bottom, gravel.
	7	1981	0'-8'	-	Yes	94	94	72	55	9	5	27.9%	Granular Borrow (gravel)	Test No. 7 was taken in the northeast floor of the south lobe of the pit, 65' S 20° E of Test No. 1. The material is: 0'-2', fine gravel; 2'-3', pebbly sand; 3'-8', gravel; bottom, gravel and water.
11	1A	1981	0.5'-13'	0'-0.5'	Yes	100	95	94	86	16	7	-	Sand Cushion & Borrow	Owner: Fred Parot. Area is the southern-most pit in a series of pits along the west side of State Aide Highway No. 3. The pit is in a field 0.06 mile west of SA3. The access is 0.94 mile north of the junction of SA 3.

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HYDE PARK GRANULAR DATA SHEET NO. 21

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Test No. 1A was taken on on the north face of the pit (at crest of feature). The material is: 0'-0.5', overburden; 0.5'-3', pebbly fine gravel; 3'-8', pebbly sand; 8'-10', sand; 10'-13', pebbly sand; bottom, pebbly sand (Test No. 1B).
	1B	1981	13'-23'	-	Yes	100	100	94	88	30	12	-	Sand Cushion & Borrow	Test No. 1B was taken below Test No. 1A. The material is: 13'-23', pebbly sand and sand; bottom, sloughed material.
	2	1981	0'-8'	-	Yes	100	100	93	78	7	5	-	Sand Cushion & Borrow	Test No. 2 was taken on the north face of the low lobe in the center of the pit. The material is: 0'-2', pebbly sand; 2'-8', pebbly fine gravel; bottom, sloughed material.
	3	1981	1'-23'	0'-1'	Yes	100	93	80	71	28	12	-	Sand Cushion & Borrow	Test No. 3 was taken on the high face in the southwest corner of the pit. The material is: 0'-1', overburden; 1'-7', sand & fine sand; 7'-23', pebbly fine gravel and pebbly sand; bottom, sloughed material.

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HYDE PARK GRANULAR DATA SHEET NO. 22

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
12	1	1981	0.5'-12'	0'-0.5'	Yes	100	92	79	67	4	3	-	Sand Cushion & Borrow	Owner: Howard Whitaker. Area is a small pit into the south end of a terrace-like hayfield. The pit is on the west side of Town Highway No. 6, 0.67 mile southwest of the junction of TH 6 and Vt. Rte. 100. Test No. 1 was taken on the west face of the pit. The material is: 0'-0.5', overburden; 0.5'-4', pebbly fine gravel; 4'-12', sand; bottom sloughed material.
	2	1981	0.5'-9'	0'-0.5'	Yes	100	100	100	100	26	6	-	Sand Cushion & Borrow	Test No. 2 was taken in the floor in the west end of the pit. The material is: 0'-0.5', overburden; 0.5'-9', sand; 9'-12', silty fine sand; bottom, silty fine sand.
	3	1981	1'-12'	0'-1'	Yes	100	100	92	88	4	2	-	Sand Cushion & Borrow	Test No. 3 was taken on the north face of the pit, at the south end of the hay-field (sampling no allowed in field). The material is: 0'-1', overburden; 1'-5', sand; 5'-5.5', pebbly fine gravel; 5.5'-12', sand; bottom, sand.

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
13	1	1981	0.5'-11'	0'-0.5'	Yes	100	100	93	83	9	3	-	Sand Cushion & Borrow	Owner: Howard Whitaker. Area is an old overgrown pit, 150' east of Town Highway No. 6. The access is 0.67 mile southwest of the junction of TH 6 and Vt. Rte. 100. Test No. 1 was taken on the east face of the pit. The material is: 0'-0.5', overburden; 0.5'-4', sand; 4'-6', pebbly fine gravel; 6'-7', sand; 7'-8', pebbly fine gravel; 8'-11', sand; bottom sand.
	2	1981	0.5'-14'	0'-0.5'	Yes	100	100	96	89	5	3	-	Sand Cushion & Borrow	Test No. 2 was taken in the floor, 120' N 40° W of Test No. 1. The material is: 0'-0.5', overburden; 0.5'-3', pebbly sand; 3'-14', sand; bottom, sand.
	3	1981	0.5'-12'	0'-0.5'	Yes	100	100	100	97	7	3	-	Sand Cushion & Borrow	Test No. 3 was taken in the floor 120' S 40° E of Test No. 2. The material is: 0'-0.5', overburden; 0.5'-12', sand; bottom, sand.
	4	1981	0.5'-9'	0'-0.5'	Yes	100	100	95	86	24	4	-	Sand Cushion & Borrow	Test No. 4 was taken on the northeast face of the pit, 20' north of Test No. 1.

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														The material is: 0'-0.5', overburden: 0.5'-2.5', pebbly fine gravel; 2.5'-9', sand; bottom, sand.
14	1	1981	1'-6'	0'-1'	Yes	100	100	100	100	63	38	-	-	Owner: Wade Simpson. Area is a very small pit in the southwest side of a small knoll on the east side of Town Highway No. 6, 1.04 miles southwest of the junction of TH 6 and Vt. Rte. 100. Test No. 1 was taken on the northeast face of the pit. The material is: 0'-1'. overburden; 1'-4', fine sand; 4'-5', silt; 5'-6', fine sand; bottom, sloughed material.
15	1	1981	3'-8'	0'-3'	Yes	100	100	100		87	56	-	-	Owner: Rene Marcoux. Area is an old, depleted pit, 0.13 mile south of Town Highway No. 56 (Class 4). The access is 0.30 mile west of the junction of Town Highway No. 56 and No. 6. Test No. 1 was taken on the east side of the north face of the pit. The material is:

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														0'-3', overburden; 3'-8', sandy silt; bottom, silt.
16	1	1981	0.5'-17'	0'-0.5'	Yes	100	100	100	97	5	2	-	Sand Cushion & Borrow	Owner: Ted Barnett. Area is 2 small pits in the south face of a 30' high sand embankment. The area is 0.25 mile north of Vt. Rte. 15. The access is 0.30 mile east of the Hyde Park/Johnson town line on Vt. Rte. 15. Test No. 1 was taken on the face of the northwest pit. The material is: 0'-0.5', overburden; 0.5'-8', sand; 8'-14', coarse pebbly sand; 14'-17', pebbly sand; bottom silty fine sand.
	2	1981	0.5'-14'	0'-0.5'	Yes	100	100	100	82	6	3	-	Sand Cushion & Borrow	Test No. 2 was taken on the face of the southeast pit. The material is: 0'-0.5', overburden; 0.5'-14', sand; bottom, sloughed material.
17	1	1981	1'-8'	0'-1'	Yes	100	100	91	81	5	2	-	Sand Cushion & Borrow	Owner: Ted Barnett. Area is a small, heavily over-grown pit formerly owned by Lanphear. The area is 125' north of Vt. Rte. 15, and 0.51 mile east of the

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Johnson/Hyde Park town line. Test No. 1 was taken of the southeast face of the pit. The material is: 0'-1', overburden; 1'-4', sand; 4'-6;, pebbly sand; 6'-8', sand; bottom, sloughed material.
18	1	1981	2'-30'	0'-2'	Yes	100	100	100	100	56	15	-	Granular Borrow (Sand)	Owner: Fritz Von Wacher. Area is a small pit on the east side of a small steep sided ridge in a pasture about 0.2 mile north of Vt. Rte. 15. The access is 0.16 mile southeast of the junction of State Aide Highway No. 4 and Vt. Rte. 15. Test No. 1 was taken on the face of the pit. The material is: 0'-2', overburden; 2'-30', interbedded sand and fine sand; bottom, sloughed material.

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
19	N/A	1981	N/A	N/A	Yes/No	-	-	No Sample		-	-	-	-	Owner: Morrisville Water & Light Co., Area is a large section (½ x ¼ mi.) of kame and kettle hole topography and a ½ mile long esker on the west side of the Green River Res. The area has an unlimited quantity of material, but access and reluctance to sell by owner make development doubtful. There is a small pit along the access road but it was not sampled due to its remote location. The material appeared to be of good quality.
20	1	1981	1.5'-3'	0'-1.5'	No	100	100	78	65	44	32	-	-	Owner: Francis Clark. Area is a knolly field on the southeast side of Town Highway No. 7, and 0.08 mile north of the junction of TH 7 and 21. Test No. 1 was taken atop the knoll at the north end of the field. The material is: 0'-1.5', overburden; 1.5'-3', sandy silt and stones; bottom, sandy silt and stones.

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	2	1981	1.5'-4'	0'-1.5'	No	100	100	100	100	40	18	-	-	Test No. 2 was taken 175' S 40° W of Test No. 1. The material is: 0'-1.5', overburden; 1.5'-4', sand; bottom, sand.
	3	1981	2'-4'	0'-2'	No	88	86	58	39	12	8	17.0%	Gravel	Test No. 3 was taken 575' S 5° W of Test No. 2. The material is: 0'-2', overburden; 2'-4', gravel; bottom, gravel.
	4	1981	1'-11'	0'-1'	No	91	88	64	41	12	7	16.4%	Gravel	Test No. 4 was taken in the field, 340' S 53° E of the junction of the field road and TH 7. The material is: 0'-1', overburden; 1'-4', pebbly fine gravel; 4'-7', gravel; 7'-9', coarse gravel; 9'-11', gravel; bottom. gravel
	5	1981	1'-11'	0'-1'	No	93	89	68	51	8	5	19.2%	Gravel	Test No. 5 was taken near the old cellar hole in the south end of the field, 275' S 45° W of Test No. 4. The material is: 0'-1', overburden; 1'-4', coarse gravel; 4'-6', pebbly sand;6'-11', gravel; bottom, gravel.

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	6	1981	1'-10'	0'-1'	No	100	100	100	99	17	6	-	Sand Cushion & Borrow	Test No. 6 was taken atop the knoll 375' N 5° W of Test No. 4. The material is: 0'-1', overburden; 1'-3', silty fine sand; 3'-10', sand; bottom, sand.
21	1	1981	1'-12'	0'-1'	No	94	92	77	64	5	3	17.8%	Granular Borrow (gravel)	Owner: Murray Stevens. Area is a long rolling field between Town Highway No. 7 & the private road on the southeast side of Collins Pond. The private road is 2.57 miles north of the junction of TH 7 and TH 16. Test No. 1 was taken 115' S 70° W of the shed. The material is: 0'-1', overburden; 1'-2', fine gravel; 2'-3', pebbly sand; 3'-12', gravel; bottom, gravel.
	2	1981	1.5'-12'	0'-1.5'	No	100	92	60	40	10	6	19.5%	Gravel	Test No. 2 was taken 450' N 82° W of Test No. 1. The material is: 0'-1.5', overburden; 1.5' - 3', cobbly gravel; 3'-12', gravel; bottom, gravel.

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HYDE PARK GRANULAR DATA SHEET NO. 30

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	3	1981	3'-11'	0'-3'	No	91	91	74	60	29	13	-	Granular Borrow (gravel)	Test No. 3 was taken near the edge of the field, 250' S 5° W of Test No. 2. The material is: 0'-3', overburden; 3'-6', gravel; 6'-11', sandy gravel; bottom, sandy gravel.
22	1	1981	1'-6'	0'-1'	Yes	93	93	87	76	6	3	14.1%	Granular Borrow (sand)	Owner: Lawrence LaClair, Jr. Area is a small shallow pit on the south side of the private road on the south side of Collins Pond. The pit is 0.37 mile southwest of Town Highway No. 7. The private road is 2.57 miles north of the junction of TH 7 and TH 16
	2	1981	2'-8'	0'-2'	No	92	87	73	60	10	7	15.2%	Gravel	Test No. 2 was taken along the trail 60' S 25° W of the main right-of-way. The material is: 0'-2', overburden; 2'-4', gravel; 4'-7', pebbly sand; 7'-8', gravel; bottom, water.

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HYDE PARK GRANULAR DATA SHEET NO. 31

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	3	1981	0'-3'	-	Yes	100	100	86	66	11	6	-	Sand Cushion & Borrow	Test No. 3 was taken in the east floor of the pit. The material is: 0'-3', pebbly fine gravel; bottom, bedrock.
	4	1981	1.5'-10'	0'-1.5'	No	85	78	39	22	15	8	13.4%	Gravel	Test No. 4 was taken in the small clearing 250' S 10° W of the private road. The material is: 0'-1.5', overburden; 1.5'-5', gravel; 5'-6', sand; 6'-10', gravel; bottom, ledge or boulder.
23	1	1981	2'-7'	0'-2'	No	87	74	57	47	12	8	17.7%	Gravel	Owner: Murray Stevens. Area is a wooded section of land on the east side of the Green River Reservoir and west of Town Highway No. 7. Access to the property is via a 0.10 mile long right-of-way from the private road south of Colling Pond. The right-of-way is 0.37 mile southwest of the junction of the private road and TH 7. The private road is 2.57 miles north of the junction of TH 7 and TH 16.

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HYDE PARK GRANULAR DATA SHEET NO. 32

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Test No. 1 was taken on the slope of the small clearing 100' S 45° W of utility pole (V. of M. Pole No.1). The material is: 0'-2', overburden;2'-4', coarse gravel; 4'-5', sand; 5'-7', gravel; bottom, ledge or boulder.
	2	1981	1'-7'	0'-1'	No	91	78	52	41	11	7	18.4%	Gravel	Test No. 2 was taken on the low rise 70' N 70° W of the utility pole(V.ofM. pole No.1). The material is: 0'-1', overburden; 1'-3.5', gravel; 3.5'-7', coarse gravel; bottom, coarse gravel.
24	1	1981	2'-32'	0'-2'	Yes	100	100	98	94	14	5	-	Sand Cushion & Borrow	Owner Robert Bourne. Area is three small pits (expanded road cuts) on the west side of Town Highway No. 7, 0.60 mile north of the junction of TH 7 and TH 22. The exact property lines in the area were not clear at the time of testing.

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HYDE PARK GRANULAR DATA SHEET NO. 33

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Test No. 1 was taken on the face of the northern-most pit. The material is: 0'-2;, overburden; 2'-4', fine sand; 4'-5', pebbly fine gravel; 5'-32', sand; bottom, sloughed material.
	2	1981	2'-17'	0'-2'	Yes	100	95	95	91	8	4	-	Sand Cushion & Borrow	Test No. 2 was taken on the face of the middle pit. The material is: 0'-2', overburden; 2'-17', sand; bottom, sloughed material.
	3	1981	2'-10'	0'-2'	Yes	100	100	100	100	63	17	-	-	Test No. 3 was taken on the face of the southern-most pit. The material is:0'-2', overburden; 2'-10', fine sand; bottom, sloughed material.
25	1	1981	2'-12'	0'-2'	No	100	93	73	55	9	7	14.0%	Gravel	Owner: Morrisville Water & Light Co. Area is an embankment in kame and kettle hole topography. The area is between the Green River Reservoir and Town Highway No. 7. The sampling site is 450' west of TH 7. The access is 2.07 miles north of the junction of TH 7 and TH 16.

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HYDE PARK GRANULAR DATA SHEET NO. 34

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Test No. 1 was taken on the north face of the embankment under the power line. The material is: 0'-2', overburden; 2'-6', silty gravel; 6'-12', gravel; bottom, sloughed material.
26	1	1981	3'-25'	0'-3'	Yes	97	87	63	42	12	5	13.2%	Gravel	Owner: Morrisville Water & Light Co. Area is a high-faced pit (expanded road cut) on the northwest side of Town Highway No. 7, 2.03 miles north of the junction of TH 7 and TH 16. The pit is on the east side of a kame-like ridge. The owner has closed off the area.
														Test No. 1 was taken on the northwest face of the pit. The material is: 0'-3', overburden; 3'-12', sand; 12'-18', silty gravel; 18'-25', gravel; bottom, sloughed material.
	2	1981	2'-25'	0'-2'	Yes	95	91	79	68	6	4	18.1%	Granular Borrow (gravel)	Test No. 2 was taken on the west face of the pit, 50' southwest of Test No. 1. The material is: 0'-2', overburden; 2'-20', gravel; 20'-25' sand; bottom, sloughed material.

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HYDE PARK GRANULAR DATA SHEET NO. 35

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
27	1	1981	2'-15'	0'-2'	Yes	100	100	100	99	9	2	-	Sand Cushion & Borrow	Owner: Morrisville Water & Light Co. Area is a small pit on the west end of a kame-like ridge. The pit is an expanded road cut on Town Highway No. 7, 0.46 mile north of the junction of TH 7 and TH 22. Test No. 1 was taken on the face of the pit. The material is: 0'-2', overburden; 2'-3', pebbly fine gravel; 3'-15', sand; bottom, sloughed material.
28	1	1981	0.5'-6'	0'-0.5'	Yes	100	87	73	61	10	7	-	Granular Borrow (sand)	Owner: Bob Bourne. Area is a small shallow pit 145' east of Town Highway No. 7, and 0.09 mile north of the junction of TH 7 and TH 22. Test No. 1 was taken on the face of the pit. The material is: 0'-0.5', overburden; 0.5'-6', pebbly fine gravel; bottom, pebbly fine gravel.
29	1	1981	2'-5'	0'-2'	Yes	100	100	100	72	20	17	-	-	Owner: Morrisville Water & Light Co. Area is a small overgrown pit south of the Green River Reservoir on Town Highway No. 16. The

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HYDE PARK GRANULAR DATA SHEET NO. 36

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														area is on the west side of TH 16, 0.93 mile north of the junction of TH 16 and TH 7. Test No. 1 was taken on the east face of the pit. The material is: 0'-2', overburden; 2'-5', silty gravel; bottom, sloughed material.
30	1	1981	1'-4'	0'-1'	Yes	100	91	51	20	22	18	16.8%	-	Owner: Morrisville Water & Light Co. Area is a small overgrown pit with no extension on the east side of Town Highway No. 16, 0.90 mile north of the junction of TH 16 and TH 7. Test No. 1 was taken on the north face of the pit. The material is: 0'-1', overburden; 1'-4', gravel; bottom, sloughed material.
31	1	1981	1.5'-7'	0'-1.5'	Yes	71	71	58	44	12	8	18.5%	Gravel	Owner; Morrisville Water & Light Co. Area is a small overgrown pit on the east side of Town Highway No. 16, 0.62 mile north of the junction of TH 16 and TH 7.

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
32	1	1981	0.5'-9'	0'-0.5'	Yes	100	100	86	70	6	3	-	Sand Cushion & Borrow	Test No. 1 was taken on the east face of the pit. The material is: 0'-1.5', overburden; 1.5'-7', coarse silty gravel; bottom, sloughed material. Owner: Arthur Goodwin. Area is 2 small pits within the triangle of roads formed by the intersection of Town Highways No. 7, No. 53, and No. 54. Test No. 1, was taken on the west face of the south pit. The material is: 0'-0.5', overburden; 0.5'-7', gravel; 7'-9', sand; bottom, sloughed material.
	2	1981	0.5'-20'	0'-0.5'	Yes	100	100	91	87	22	4	-	Sand Cushion & Borrow	Test No. 2 was taken on the southwest face of the northern pit. The material is: 0'-0.5', overburden; 0.5'-3', sand; 3'-5', pebbly fine gravel; 5'-18' sand; 18'-20' pebbly sand; bottom, sloughed material.

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HYDE PARK GRANULAR DATA SHEET NO. 38

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
33	1	1981	1'-25'	0'-1'	Yes	100	94	73	56	5	3	17.5%	Gravel	Owner: Morrisville Water & Light Co. Area is an old overgrown pit in the west side of a kame-like hill. The pit is 140' east of Town Highway No. 7. The access road is at the junction of TH 7 and TH 16. Test No. 1 was taken on the east face of the pit. The material is: 0'-1', overburden; 1'-6', sand; 6'-25', gravel; bottom, sloughed material.
	2	1981	1'-18'	0'-1'	Yes	83	81	68	49	8	4	17.2%	Gravel	Test No. 2 was taken on the northeast face of the pit. The material is: 0'-1', overburden; 1'-5', sand; 5'-18', gravel; bottom, sloughed material.
34	1A	1981	2'-25'	0'-2'	Yes	95	86	74	60	5	3	18.0%	Gravel	Owner: Morrisville Water & Light Co. Area is a high faced pit (expanded road cut) on the north side of Town Highway No. 7, 0.06 miles east of the junction of TH 7 &

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														TH 16. Test No. 1A was taken on the north face in the center of the pit. The material is: 0'-2', over-burden; 2'-6', gravel; 6'-12', sand; 12'-25', gravel;bottom, gravel (Test No. 1B).
	1B	1981	25-55	-	Yes	100	98	85	74	10	3	17.3%	Sand Cushion & Borrow	Test No. 1B was taken below Test No. 1A. The material is: 25'-30', gravel; 30'-40', sand; 40'-48', gravel; 48'-55', sand; bottom, sand.
	2A	1981	2'-20'	0'-2'	Yes	95	92	82	67	9	3	18.0%	Granular Borrow (Gravel)	Test No. 2A was taken on the northeast face of the pit. The material is: 0'-2', overburden; 2'-7', fine sand; 7'-12' gravel; 12'-16' pebbly fine gravel; 16'-20' coarse sand;bottom, coarse sand (Test 2B).
	2B	1981	20'-45'	-	Yes	100	100	94	82	10	4	-	Sand Cushion & Borrow	Test 2B was taken below Test No. 2A. The material is: 20'-22', coarse sand; 22'-30', gravel; 30'-34', pebbly fine

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HYDE PARK GRANULAR DATA SHEET NO. 40

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Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														gravel; 34'-38', coarse sand; 38'-45', sand; bottom, sand.
35	1	1981	0.5'-20'	0'-0.5'	No	91	82	59	47	8	5	21.7%	Gravel	Owner: Woodrow Litwhiler Area is cut embankment on the east side of a kame-like hill bordering a small man-made lake. The area is 0.10 mile north of Town Highway No. 7. The access is 0.41 mile east of the junction of TH 7 and TH 16. Test No. 1 was taken on the south end of the bank. The material is 0'-0.5', overburden; 0.5'-20', gravel; bottom, sloughed material.
36	1	1981	0.5'-8'	0'-0.5'	No	95	95	68	49	5	3	17.6%	Gravel	Owner: Town of Hyde Park (Right-of-way). Area is a cut embankment in the right-of-way for Town Highway No. 7. The extension of this area is a hayfield with several kame-like knolls belonging to Doris Judkins (testing not permitted).

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HYDE PARK GRANULAR DATA SHEET NO. 41

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														The area is on the west side of TH 7, 0.60 mile north of the junction of TH 7 and TH 16. Test No. 1 was taken of the face of the road cut. The material is: 0'-0.5', overburden; 0.5'-8', gravel; bottom, gravel.
37	1	1981	0.5'-12'	0'-0.5'	Yes	89	87	70	62	5	3	17.4%	Granular Borrow (Gravel)	Owner: Carwin Realty. Area is a small pit in the edge of a small field which has been divided in to building lots. The pit is on the south side of Town Highway No. 7, 0.73 mile north of the junction of TH 7 and TH 16. Test No. 1 was taken on the south face of the pit The material is: 0'-0.5', overburden; 0.5'-3', pebbly fine gravel; 3'-10', gravel; 10'-12', pebbly fine gravel; bottom, sloughed material.

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HYDE PARK GRANULAR DATA SHEET NO. 42

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
38	1	1981	1'-18'	0'-1'	Yes	94	90	66	46	8	5	19.1%	Gravel	Owner: Atlantic Tree Service. Area is an old overgrown pit and extension along the east side of Town Highway No. 53, 0.89 mile north of the junction of TH 53 & TH 50. Test No. 1 was taken on the northeast face of the pit. The material is: 0'-1', overburden; 1'-14'- gravel; 14'-18', pebbly fine gravel; bottom, sloughed material.
	2	1981	1'-20'	0'-1'	Yes	93	93	77	62	8	4	19.8%	Granular Borrow (gravel)	Test No. 2 was taken on the east face of the pit. The material is: 0'-1', overburden; 1'-16', gravel; 16'-20', sand; bottom, sloughed material
	3	1981	1'-12'	0'-1'	No	92	92	85	77	6	4	17.3%	Granular Borrow (Sand)	Test No. 3 was taken in the pines, 105' N 65° E of Test No. 1. The material is: 0'-1', overburden; 1'-4', fine gravel; 4'-5', sand; 5'-9', gravel; 9'-12', pebbly sand; bottom, pebbly sand.

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	4	1981	1'-12'	0'-1'	No	94	84	69	54	9	5	16.6%	Gravel	Test No. 4 was taken in the clearing 215' S 10° W of Test No. 3. The material is: 0'-1', overburden; 1'-4', fine gravel; 4'-5', sand; 5'-7', gravel; 7'-12', pebbly sand; bottom, pebbly sand
	5	1981	0.5'-13'	0'-0.5'	No	94	82	71	59	7	5	20.2%	Gravel	Test No. 5 was taken in the clearing 200' N 82° E of Test No. 4. The material is: 0'-4', overburden; 4'-6', gravel; 6'-7', sand; 7'-9', gravel; 9'-12', sand; bottom, sand.
	6	1981	0.5'-13'	0'-0.5'	No	100	100	100	99	41	15	-	Granular Borrow (sand)	Test No. 6 was taken in the field, 145' S 15° E of Test No. 4 and 225' S 40° W of Test No. 5. The material is: 0'-0.5' overburden; 0.5'-2', gravel; 2'-3', sand; 3'-4', pebbly fine gravel; 4'-13', sand; bottom, sand.
	7	1981	1'-11'	0'-1'	No	100	88	82	74	33	13	-	Granular Borrow (sand)	Test No. 7 was taken in the clearing 230' S 45° E of Test No. 6.

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HYDE PARK GRANULAR DATA SHEET NO. 44

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														The material is: 0'-1', overburden; 1'-3', pebbly fine gravel; 3'-5', sand; 5'-6', pebbly fine gravel; 6'-7', sand; 7'-9' pebbly fine gravel; 9'-11', sand; bottom, sand.
	8	1981	1'-12'	0'-1'	No	94	90	67	51	6	4	15.8%	Gravel	Test No. 8 was taken in the field 215' S 10° E of Test No. 7. 25' south of the field road. The material is: 0'-1', overburden; 1'-9', pebbly fine gravel; 9'-12', cobbly gravel; bottom, cobbly gravel.
	9	1981	1.5'-12'	0'-1.5'	No	100	96	83	68	5	3	-	Sand Cushion & Borrow	Test No. 9 was taken in the field 230' S 20° E of Test No. 8. The material is: 0'-1.5', overburden; 1.5'-8', pebbly fine gravel; 8'-9', sand; 9'-12', pebbly sand; bottom, pebsand.
	10	1981	1'-12'	0'-1'	No	100	100	92	85	8	5	-	Sand Cushion & Borrow	Test No. 10 was taken in the field near the field road, 100' N 75°E of the fence corner.

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HYDE PARK GRANULAR DATA SHEET NO. 45

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														The material is: 0'-1', overburden; 1'-2', pebbly fine gravel; 2'-8', pebbly sand; 8'-9', sand; 9'-12', pebbly sand; bottom, sand.
39	1	1981	1'-15'	0'-1'	Yes	100	100	100	92	17	5	-	Sand Cushion & Borrow	Owner: Henry Stocek. Area is a pit in the west face of a small deltaic deposit 175' east of Town Highway No. 14. The access is 0.22 mile south of the junction of TH 14 and TH 7. Test No. 1 was taken on the east face of the pit. The material is: 0'-1', overburden; 1'-8', sand; 8'-9', fine sand; 9'-15', pebbly sand; bottom, sloughed material.
40	1	1981	0.5'-7'	0'-0.5'	Yes	83	71	48	31	16	12	16.9%	Granular Borrow (gravel)	Owner: Charles Davis. Area is a small pit in a pasture along the west side of Town Highway No. 53. The pit is 150' west of Town Highway 53, 0.68 mile north of the junction of TH 53 and TH 50.

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HYDE PARK GRANULAR DATA SHEET NO. 46

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Test No. 1 was taken on the north face of the pit. The material is: 0'-0.5', overburden; 0.5'-7', coarse gravel; bottom, coarse gravel.
	2	1981	1.5'-10'	0'-1.5'	No	93	91	70	45	19	11	17.9%	Granular Borrow (gravel)	Test No. 2 was taken in the pasture, near the fence corner near the town highway. The material is: 0'-1.5', overburden; 1.5'-10', silty gravel; bottom, coarse silty gravel.
	3A	1981	0'-3'	-	Yes	100	91	69	46	8	4	16.9%	Gravel	Test No. 3A was taken in the floor of the pit, 130' S 40° W of Test No. 2. The material is: 0'-3', gravel; bottom, sand (Test No. 3B)
	3B	1981	3'-11	-	Yes	100	100	100	98	77	21	-	-	Test No. 3B was taken below Test No. 3A. The material is: 3'-11', sand; bottom, sand and water.

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HYDE PARK GRANULAR DATA SHEET NO. 47

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis[1] % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	4	1981	1'-12'	0'-1'	No	100	97	62	39	9	7	17.1%	Gravel	Test No. 4 was taken atop the low knoll in the pasture, 240' S 10°E of Test No. 3. The material is: 0'-1', overburden; 1'-12', gravel; bottom, gravel.
41	1	1981	0'-12'	-	Yes	100	100	100	98	14	5	-	Sand Cushion & Borrow	Owner: Charles Davis. Area is a new pit and extension in a deltaic feature 0.10 mile east of Town Highway No. 53. The access is 0.55 mile north of the junction of TH 53 and TH 50. Test No. 1 was taken in the floor of the pit. The material is: 0'-3', silty fine sand; 3'-12', sand; bottom, sand.
	2A	1981	0.5'-7'	0'-0.5'	No	94	94	70	54	7	5	13.0%	Gravel	Test No. 2A was taken on the knoll, 100' S 15° W of the fence corner. The material is: 0'-0.5', overburden; 0.5'-7', fine gravel; bottom, sand (Test No. 2B)

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HYDE PARK GRANULAR DATA SHEET NO. 48

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	2B	1981	7'-12'	-	No	100	100	91	84	3	2	-	Sand Cushion & Borrow	Test No. 2B was taken below Test No. 2A. The material is: 7'-12', sand; bottom, sand.
	3	1981	0.5;-7'	0'-0.5'	No	97	79	56	37	10	7	18.8%	Gravel	Test No. 3 was taken on the knoll 120' N 8° E of the fence corner. The material is: 0'-0.5', overburden; 0.5'-7', gravel; 7'-10', sand; 7'-10', sand; bottom, sand.
	4	1981	1'-11'	0'-1'	No	100	97	80	64	8	4	-	Sand Cushion & Borrow	Test No. 4 was taken in the north corner of the pasture, 130' N 65° E of Test No. 3. The material is: 0'-1', overburden; 1'-3.5', fine gravel; 3.5'-5'. sand; 5'-7', pebbly gravel; 7'-9', pebbly sand, 9'-11', sand; bottom, sand.
	5	1981	0.5'-6'	0'-0.5'	No	95	85	68	52	6	4	12.9%	Gravel	Test No. 5 was taken atop the low knoll, 160' N 80° W of Test No. 3. The material is: 0'-0.5' overburden; 0.5'-6', gravel; 6'-10' interbedded sand and pebbly sand; bottom, sand.

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TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	6A	1981	1'-7'	0'-1'	No	100	95	67	57	5	3	12.6%	Gravel	Test No. 6A was taken on the low lobe, 150' S 50° W of Test No. 5. The material is: 0'-1', overburden; 1'-7', gravel; bottom, sand. (Test No. 6B)
	6B	1981	7'-11'	-	No	100	100	92	86	5	2	-	Sand Cushion & Borrow	Test No. 6B was taken below Test No. 6A. The material is: 7'-11', sand; bottom, sand.
	7	1981	1.5'-5.5'	0'-1.5'	No	77	73	55	46	15	12	15.8%	Granular Borrow (Gravel)	Test No. 7 was taken on the edge of the clearing 175' N 65° W of Test No. 6 and 285' S 85° W of Test No. 5. The material is: 0'-1.5', overburden; 1.5'-5.5', coarse gravel; 5.5'-12', sand; bottom, silty fine sand.
	8	1981	1'-6'	0'-1'	No	95	95	74	55	14	10	16.1%	Granular Borrow (gravel)	Test No. 8 was taken in the east corner of the field, 200' S 65° E of Test No. 2. The material is: 0'-1', overburden; 1'-6', gravel; 6'-11', silty fine sand; bottom, ledge or boulder.

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HYDE PARK GRANULAR DATA SHEET NO. 50

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	9	1981	2'-12'	0'-2'	No	92	80	67	60	16	10	18.3%	Granular Borrow (gravel)	Test No. 9 was taken in the clearing in the south east corner of the area, 250' S 5° E of Test No. 2. The material is: 0'-2', overburden; 2'-4', gravel; 4'-5', sand; 5'-8', pebbly gravel; 8'-12', sand and stones; bottom, sand and stones.
	10	1981	0.5'-12'	0'-0.5'	Yes	92	89	73	57	5	3	15.3%	Gravel	Test No. 10 was taken on the northeast face of the pit. The material is: 0'-0.5', overburden; 0.5'-4.5', fine gravel; 4.5'-6', pebbly sand; 6'-9', pebbly fine gravel; 9'-12', pebbly sand; bottom, sand.
42	1	1981	1'-22'	0'-1'	Yes	100	86	82	73	6	3	-	Granular Borrow (sand)	Owner: Charles Davis. Area is a pit in a hilly pasture (kame & kettle topography), 350' east of Town Highway No. 53. The access is 0.70 mile north of the junction of TH 53 and TH 50. Test No. 1 was taken on the center of the north-east face of the pit.

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HYDE PARK GRANULAR DATA SHEET NO. 51

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														The material is: 0'-1', overburden; 1'-3', sand; 3'-4', silt; 4'-5', gravel; 5'-20', sand; 20'-22', pebbly sand; bottom, pebbly sand.
	2	1981	1'-23'	0'-1'	Yes	100	96	84	69	9	5	-	Sand Cushion & Borrow	Test No. 2 was taken on the east face of the pit. The material is: 0'-1', overburden; 1'-4', gravel; 4'-23', sand; bottom, sand.
	3	1981	1'-8'	0'-1'	Yes	100	88	80	70	7	5	-	Granular Borrow (Sand)	Test No. 3 was taken on the face of the east end of the pit. The material is: 0'-1', overburden; 1'-4', gravel; 4'-6', sand; 6'-7', gravel; 7'-8', sand; bottom, sand.
	4	1981	0'-12'	-	Yes	100	100	97	95	29	7	-	Sand Cushion & Borrow	Test No. 4 was taken in the floor of the pit. The material is: 0'-12', sand; bottom, sand;
	5	1981	0.5'-12'	0'-0.5'	No	100	100	95	86	13	6	-	Sand Cushion & Borrow	Test No. 5 was taken atop the knoll near the fence above the pit, 30' N 65° E of Test No. 1. The material is: 0'-0.5', overburden; 0.5'-2.5',

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HYDE PARK GRANULAR DATA SHEET NO. 52

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														pebbly sand; 2.5'-4.5', sand; 4.5'-5', pebbly sand; 5'-12', pebbly fine gravel; bottom, pebbly sand.
	6	1981	1'-12'	0'-1'	No	100	100	100	97	24	11	-	Sand Cushion & Borrow	Test No. 6 was taken atop the knoll at the east end of the field 470' S 58° E of Test No. 5. The material is: 0'-1', overburden; 1'-3', pebbly sand; 3'-5',sand; 5'-6', pebbly sand; 6'-12', sand; bottom, sand.
	7	1981	2.5'-12'	0'-2.5'	No	100	100	96	84	13	9	-	Sand Cushion & Borrow	Test No. 7 was taken in the small sag 90' N 50° W of Test No. 6. The material is: 0'-0.2', overburden; 2.5'-7', sand 7'-9', pebbly sand; 9'-12', sand; bottom, sand.
43	1	1981	0.5'-10'	0'-0.5'	No	100	100	89	73	7	4	-	Sand Cushion & Borrow	Owner: Charles Davis. Area is a large cornfield 0.20 mile southeast of Town Highway No. 53. The access is 0.70 mile north of the junction of TH 53 and TH 50.

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HYDE PARK GRANULAR DATA SHEET NO. 53

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Test No. 1 was taken in the northern-most corner of the field. The material is: 0'-0.5', overburden; 0.5'-10', interbedded pebbly sand and fine gravel; bottom, pebbly sand.
	2A	1981	0.5'-6'	0'-0.5'	No	100	100	100	100	87	25	-	-	Test No. 2A was taken 450' S 10° E of Test No. 1. The material is: 0'-0.5', overburden; 0.5'-6', sand; bottom, gravel (Test No. 2B.)
	2B	1981	6'-11'	-	No	97	97	83	68	19	8	16.8%	Granular Borrow (gravel)	Test No. 2B was taken below Test No. 2A. The material is: 6'-11', gravel; bottom, gravel.
	3	1981	0.5'-10'	0'-0.5'	No	100	98	86	60	8	6	19.6%	Gravel	Test No. 3 was taken 575' S 60° W of Test No. 2. The material is: 0'-0.5', overburden; 0.5'-10', gravel; bottom, gravel.
	4	1981	0.5'-9'	0'-0.5'	No	100	100	95	91	6	3	-	Sand Cushion & Borrow	Test No. 4 was taken 350; N 20° E of Test No. 3. The material is: 0'-0.5', overburden; 0.5'-9', sand; 9'-10' gravel; bottom, gravel.

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HYDE PARK GRANULAR DATA SHEET NO. 54

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
44	1	1981	1'-8'	0'-1'	Yes	88	83	56	39	5	3	14.2%	Gravel	Owner: Charles Davis. Area is a pit at the end of the owner's driveway between the house and barn. The pit is 140' west of Town Highway No. 53. The driveway is 0.53 mile north of the junction of TH 53 and TH 50. Test No. 1 was taken on the face at the northeast end of the pit. The material is: 0'-1', overburden; 1'-8', gravel; bottom, gravel.
	2	1981	1.5'-10'	0'-1.5'	Yes	93	80	58	39	17	9	14.6%	Granular Borrow (gravel)	Test No. 2 was taken on the face at the southwest end of the pit. The material is: 0'-1.5', overburden; 1.5'-10', gravel; bottom, gravel.
	3	1981	0	-	Yes	100	92	77	60	4	2	17.7%	Gravel	Test No. 3 was taken in the floor of the north end of the pit. The material is: 0'-6', fine gravel; bottom, silty fine sand.

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HYDE PARK GRANULAR DATA SHEET NO. 55

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	4	1981	0.5'-10'	0'-0.5'	Yes	100	100	100	100	93	52	-	-	Test No. 4 was taken in the floor in the south end of the pit. The material is: 0'-0.5', overburden; 0.5'-10', silty fine sand; bottom, silty fine sand.
45	1A	1981	0.5'-7'	0'-0.5'	No	93	74	56	44	17	10	16.4%	Granular Borrow (gravel)	Owner: Charles Davis. Area is a large field. The eastern half is a lobate ridge planted in alfalfa (testing not permitted). The western half is a cornfield along the east side of Town Highway No. 53 and 0.17 mile north of the junction of TH 53 and TH 50. Test No. 1 was taken in the southwest corner of the cornfield. The material is: 0'-0.5';over-burden; 0.5'-7', gravel; bottom, sand;(Test No.1B)
	1B	1981	7'-11'	-	No	100	100	90	86	60	24	-	-	Test No. 1B was taken below Test No. 1A. The material is: 7'-11', sand; bottom, sand.

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HYDE PARK GRANULAR DATA SHEET NO. 56

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	2	1981	0.5'-10'	0'-0.5'	No	89	77	58	44	9	5	20.1%	Gravel	Test No. 2 was taken 450' N 50° E of Test No. 1. The material is: 0'-0.5', overburden; 0.5'-10', gravel; bottom, gravel.
	3	1981	1'-10'	0'-1'	No	89	80	69	54	6	4	18.6%	Gravel	Test No. 3 was taken 500' N 50° E of Test No. 2. The material is: 0'-1', overburden; 1'-10', gravel; bottom, gravel.
	4	1981	1'-10'	0'-1'	No	94	91	74	62	6	4	15,8%	Granular Borrow (gravel)	Test No. 4 was taken atop the ridge, in the edge of the woods (an extension of the alfalfa field). The material is: 0'-1', overburden; 1'-10', gravel; bottom, gravel.
46	1	1981	1'-10'	0'-1'	Yes	91	91	66	44	4	2	19.2%	Gravel	Owner: Bernard Emerson. Area is a pit in a side hill alfalfa field. The feature appears to be deltaic in origin. The pit is 75' west of TH No. 53, and 0.21 mile north of the junction of TH 53 and TH 50.

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HYDE PARK GRANULAR DATA SHEET NO. 57

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														Test No. 1 was taken on the face at the north end of the pit (graded over after testing). The material is: 0'-1', overburden; 1'-20', gravel; bottom, gravel.
	2	1981	1'-17'	0'-1'	Yes	94	90	69	38	10	6	17.1%	Gravel	Test No. 2 was taken on the west face in the middle of the pit. The material is: 0'-1', over burden: 1'-4', gravel; 4'-7', silty gravel; 7'-17', gravel; bottom, gravel.
	3	1981	1'-17'	0'-1'	Yes	92	92	74	52	5	3	18.5%	Gravel	Test No. 3 was taken on the face at the south end of the pit. The material is: 0'-1', over burden; 0'-15', gravel; 15'-17', sand; bottom, sand.
	4	1981	0'-8'	-	Yes	100	90	64	35	10	7	19.3%	Gravel	Test No. 4 was taken in the floor in the north end of the active part of the pit. The material is: 0'-8', gravel; bottom, gravel.

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HYDE PARK GRANULAR DATA SHEET NO. 58

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	5	1981	0'-10'	-	Yes	93	93	83	60	5	3	18.8%	Gravel	Test No. 5 was taken in the floor in the south end of the pit, 165' S 45° W of Test No. 4. The material is: 0'-10', gravel; bottom, gravel.
47	1	1981	1'-11'	0'-1'	No	91	79	69	55	14	9	-	Granular Borrow (gravel)	Owner: H. A. Manosh. Area is a large, rectangular cornfield in the northeast corner of the junction of Town Highways No. 53 & No. 50. Test No. 1 was taken 500' N 25° E of the southwest corner of the field. The material is: 0'-1', overburden; 1'-6', pebbly fine gravel; 6'-11', gravel; bottom, gravel.
	2A	1981	1'-6'	0'-1'	No	100	100	84	77	6	4	-	Sand Cushion & Borrow	Test No. 2A was taken 300' N 55° W of Test No. 1. The material is: 1'-6', sand; bottom, gravel. (Test No. 2B).

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HYDE PARK GRANULAR DATA SHEET NO. 59

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	2B	1981	6'-11'	-	No	100	92	69	51	6	4	16.9%	Gravel	Test No. 2B was taken below Test No. 2A. The material is: 6'-11', gravel; bottom, gravel.
	3	1981	2'-11'	0'-2'	No	97	89	64	50	14	9	19.1%	Granular Borrow (gravel)	Test No. 3 was taken 400' N 55° W of Test No. 2. The material is: 0'-2', overburden; 2'-11', coarse gravel; bottom, gravel.
	4	1981	1'-10'	0'-1'	No	94	82	65	49	9	7	16.6%	Gravel	Test No. 4 was taken 400' N 55° W of Test No. 3. The material is: 0'-1', overburden; 1'-10', gravel; bottom, gravel.
48	1	1981	2'-8'	0'-2'	No	89	88	58	37	11	8	18.9%	Gravel	Owner: Benton Emerson. Area is a flat pasture with a steep face along the west side of Town Highway No. 53, 0.05 mile south of the junction of TH 53 and TH 50. Test No. 1 was taken on the cut roadside embankment on the east edge of the field. The material is: 0'-2', overburden; 2'-8', silty gravel; bottom, silt.

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HYDE PARK GRANULAR DATA SHEET NO. 60

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
49	1	1981	2'-8'	0'-2'	Yes	95	89	57	43	4	3	15.3%	Gravel	Owner; H. A. Manosh. Area is a large commercial pit 0.03 mile south of Town Highway No. 50. The access is 0.05 mile east of the junction of TH 50 and TH 53. Test No. 1 was taken in the northeast corner of the pit. The material is: 0'-2', overburden; (previously disturbed material); 2'-8', gravel 8'-11', sand; bottom, sand.
	2	1981	1'-10'	0'-1'	Yes	100	100	96	91	8	4	-	Sand Cushion & Borrow	Test No. 2 was taken 650' S 40° W of Test No. 1. The material is: 0'-1', overburden; (disturbed material); 1'-10', sand; bottom, sand.
	3	1981	1'-8'	0'-1'	Yes	100	100	91	86	6	3	-	Sand Cushion & Borrow	Test No.3 was taken in the floor in the southeast end of the pit. The material is: 0'-1', overburden (disturbed material) 1'-8', sand; bottom, sand.

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HYDE PARK GRANULAR DATA SHEET NO. 61

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	4	1981	1'-10'	0'-1'	No	94	79	57	41	9	7	17.8%	Gravel	Test No. 4 was taken 70' S 15° W of the fence corner northwest of the pit. The material is: 0'-1', overburden; 1'-6', gravel; 6'-10', pebbly gravel; 10'-12', pebbly sand; bottom, sand.
	5	1981	1'-10'	0'-1'	No	100	95	83	69	9	5	16.2%	Sand Cushion & Borrow	Test No. 5 was taken 450' S 25° W of Test No. 4. The material is: 0'-1', overburden; 1'-10', pebbly fine gravel; bottom, pebbly fine gravel.
	6	1981	1'-11'	0'-1'	No	91	88	73	57	7	4	-	Gravel	Test No. 6 was taken 600' south of Test No. 5. The material is: 0'-1', overburden; 1'-11', interbedded sand, gravel pebbly fine gravel; bottom, pebbly fine gravel.
	7	1981	5'-11'	0'-1'	No	94	87	70	56	9	5	15.9%	Gravel	Test No. 7 was taken 400' east of Test No. 6. The material is: 0'-1', overburden; 1'-5', sand 5'-11', gravel; bottom, gravel.

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HYDE PARK GRANULAR DATA SHEET NO. 62

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	8A	1981	2'-15'	0'-2'	Yes	94	87	69	55	5	3	17.2%	Gravel	Test No. 8A was taken on the face in the north east corner of the pit. The material is: 0'-2', overburden; 2'-10', coarse gravel; 10'-15', coarse sand; bottom, pebbly sand. (Test No. 8B).
	8B	1981	15'-25'	-	Yes	100	100	77	49	4	3	19.2%	Gravel	Test No. 8B was taken below Test No. 8A. The material is: 15'-17', pebbly sand; 17'-20', gravel; 20'-22', pebbly sand; 22'-25', fine gravel; bottom, sloughed material.
	9	1981	2'-18'	0'-2'	Yes	87	79	60	46	7	5	16.1%	Gravel	Test No. 9 was taken on the southeast face of the pit, 460' S 20° W of Test No. 8. The material is: 0'-2', overburden; 2'-18', gravel; bottom, sand.
	10A	1981	0'-10'	-	Yes	100	90	70	56	5	3	18.1%	Gravel	Test No. 10A was taken on the south face of the east lobe of the pit. The material is:

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HYDE PARK GRANULAR DATA SHEET NO. 63

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														0'-10', interbedded gravel and pebbly fine gravel; bottom, sand (Test No. 10B).
	10B	1981	10'-27'	-	Yes	100	100	100	97	20	6	-	Sand Cushion & Borrow	Test No. 10B was taken below Test No. 10A. The material is: 10'-27', sand; bottom, sloughed material.
50	1	1981	1'-13'	0'-1'	No	100	90	58	40	7	4	18.2%	Gravel	Owner: Benton Emerson. Area is a narrow, flat hayfield with a steep face at the Hyde Park town line. The hayfield is along the east side of TH No. 53. Access to the hayfield is 0.41 mile north of the Hyde Park-Morristown town line. Test No. 1 was taken in the woods in the southwest corner of the field. The material is: 0'-1', overburden; 1'-13', gravel; bottom, gravel.
51	1	1981	1'-11'	0'-1'	No	95	86	58	40	6	4	19.3%	Gravel	Owner: Bernard Emerson Area is a 1/2 mile long cornfield on the south side of Town Highway No. 50. The southeast

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HYDE PARK GRANULAR DATA SHEET NO. 64

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
														edge of the field is a steep embankment to the town line. The field is 0.14 mile east of the junction of TH 50 and TH 53. Test No. 1 was taken in the southwest corner of the field. The material is: 0'-1', overburden; 1'-11', gravel; bottom, gravel.
	2A	1981	0.5'-6'	0'-0.5'	No	100	93	86	80	4	2	-	Sand Cushion & Borrow	Test No. 2A was taken 550' N 65° E of Test No. 1. The material is: 0'-0.5', overburden;0.5'-6', sand; bottom, gravel (Test No. 2B)
	2B	1981	6'-11'	-	No	100	96	77	63	3	2	19.8%	Sand Cushion & Borrow	Test No. 2B was taken below Test No. 2A. The material is: 6'-11', gravel; bottom, gravel.
	3	1981	0.5-7'	0'-0.5'	No	100	100	93	88	5	3	-	Sand Cushion & Borrow	Test No. 3 was taken 800' N 10° E of Test No. 2. The material is:0'-0.5', overburden; 0.5'-7', sand; bottom,sand.

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HYDE PARK GRANULAR DATA SHEET NO. 65

TABLE I

Map Ident. No.	Field Test No.	Year Field Tested	Depth of Sample (Ft)	Over-burden (Ft)	Exist-ing Pit	Sieve Analysis % Passing 2"	1 1/2"	1/2"	#4	#100	#200	Abrasion AASHTO T-4-35	Passes AOT Spec.	Remarks
	4	1981	3'-10'	0'-0.5'	No	94	85	64	46	8	5	21.3%	Gravel	Test No. 4 was taken 900' N 60° E of Test No. 3. The material is: 0'-0.5', overburden; 0.5'-3', sand; 3'-10', gravel bottom, gravel.
	5	1981	0.5'-11'	0'-0.5'	No	100	100	77	55	10	7	18.2%	Gravel	Test No. 5 was taken in the northwest corner of the field. The material is: 0'-0.5', overburden; 0.5'-11', gravel bottom, gravel.
52	1	1981	-	-	Yes	-	-	-	-	-	NO SAMPLE	-	- -	- - Owner: Jane Illiman. Area is a high-faced pit on the Hyde Park-Morristown town line. The pit was formerly owned by Dr. Beam. The material appeared to be clean gravel and sand. the owner wishes to close the pit permanantly.

Table I

Supplement

Hyde Park Porperty Owners - Granular	Map Identification No.
Atlantic Tree Service	38
Barnett, Ted	16, 17
Bourne, Robert	24, 28
Bullard Lumber Co.	1, 2
Carwin Realty	37
Clark, Francis	20
Davis, Charles	40, 41, 42, 43, 44, 45
Emerson, Benton	48, 50
Emerson, Bernard	46, 51
Goodwin, Arthur	32
Harvey, Melvin & Kenneth	7
Heath, Marjory	3
Hyde Park, Town of	36
Illiman, Jane	52
Jones, Robert	6, 8
LaClair, Lawrence, Jr.	22
Litwhiler, Woodrow	35
Locke, Marvin	4, 5
Manosh, Howard	47, 49
Marcoux, Rene	15
Morrisville Water & Light Co.	19, 25, 26, 27, 29, 30, 31, 33, 34
Parot, Fred	9, 10, 11
Simpson, Wade	14
Stevens, Murray	21, 23
Stocek, Henry	39
Von Wacher, Fritz	18
Whitaker, Howard	12, 13

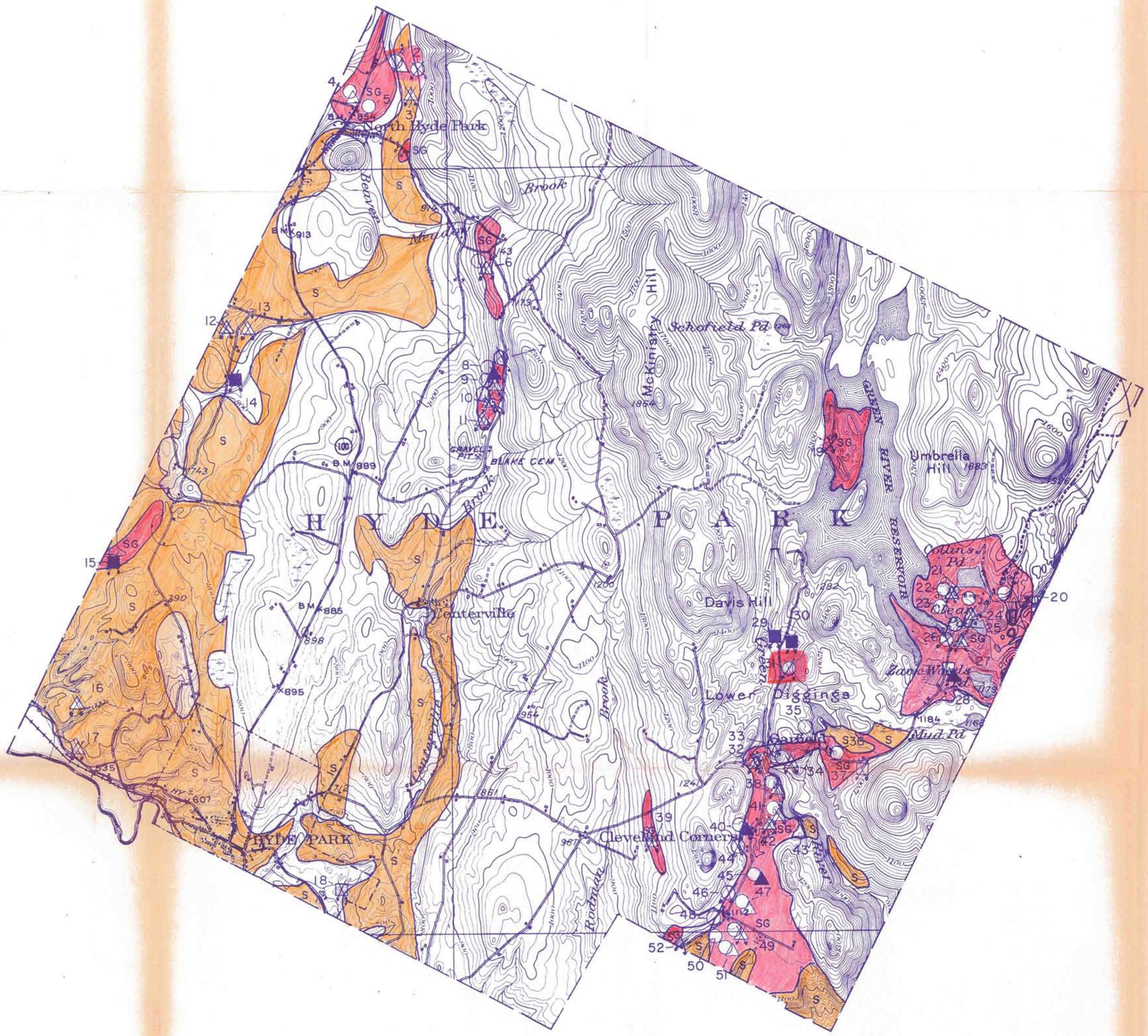
TABLE II

HYDE PARK ROCK DATA SHEET NO. 1

Ident. No.	Field Test No.	Year Field Tested	Rock Type	Existing Quarry	Method of Sampling	Abrasion AASHTO T-3	Abrasion AASHTO T-96	Remarks
1	1A	1981	Greenstone	No	Chip	7.3	24.3	Owner: Charles Davis. Area is a 1000' long ledge face which runs parallel to Town Highway No. 53. The ledge is 35'-40' high. The test area is located 250' west of TH 53, 0.68 mile north of the junction of TH 53 and TH 50. Test 1A was taken on the ledge face, about 300' southwest of the small barn.
	1B	1981	Greenstone	No	Chip	7.6	25.3	Test 1B was taken 200' north of Test 1A.

Table II
Supplement

Hyde Park Property Owners - Rock	Map Identification No.
Davis, Charles	1



N

LEGEND

- ○ GRAVEL, ACCEPTABLE FOR SEC. 704.05 (gravel for sub-base)
- ● GRAVEL, DEPLETED OR NOT ACCEPTABLE FOR SEC. 704.05
- △ SAND, ACCEPTABLE FOR SEC. 703.03 (sand borrow and cushion)
- ▲ SAND, DEPLETED OR NOT ACCEPTABLE FOR SEC. 703.03
- □ GRANULAR BORROW, SEC. 703.05
- ■ MATERIAL NOT ACCEPTABLE FOR SEC. 703.05
- ⚔ EXISTING PIT
- SG SAND & GRAVEL DEPOSIT
- S SAND DEPOSIT
- 3 IDENTIFICATION NUMBER (refer to data sheets)

HYDE PARK

SCALE 1:31,250

0.5 0 1 MILE

CONTOUR INTERVAL 20 FEET
1982

GRANULAR MATERIALS MAP

BY

VERMONT AGENCY OF TRANSPORTATION

MATERIALS AND RESEARCH DIVISION

NOTE: BASED ON U.S.G.S. TOPOGRAPHIC MAPS

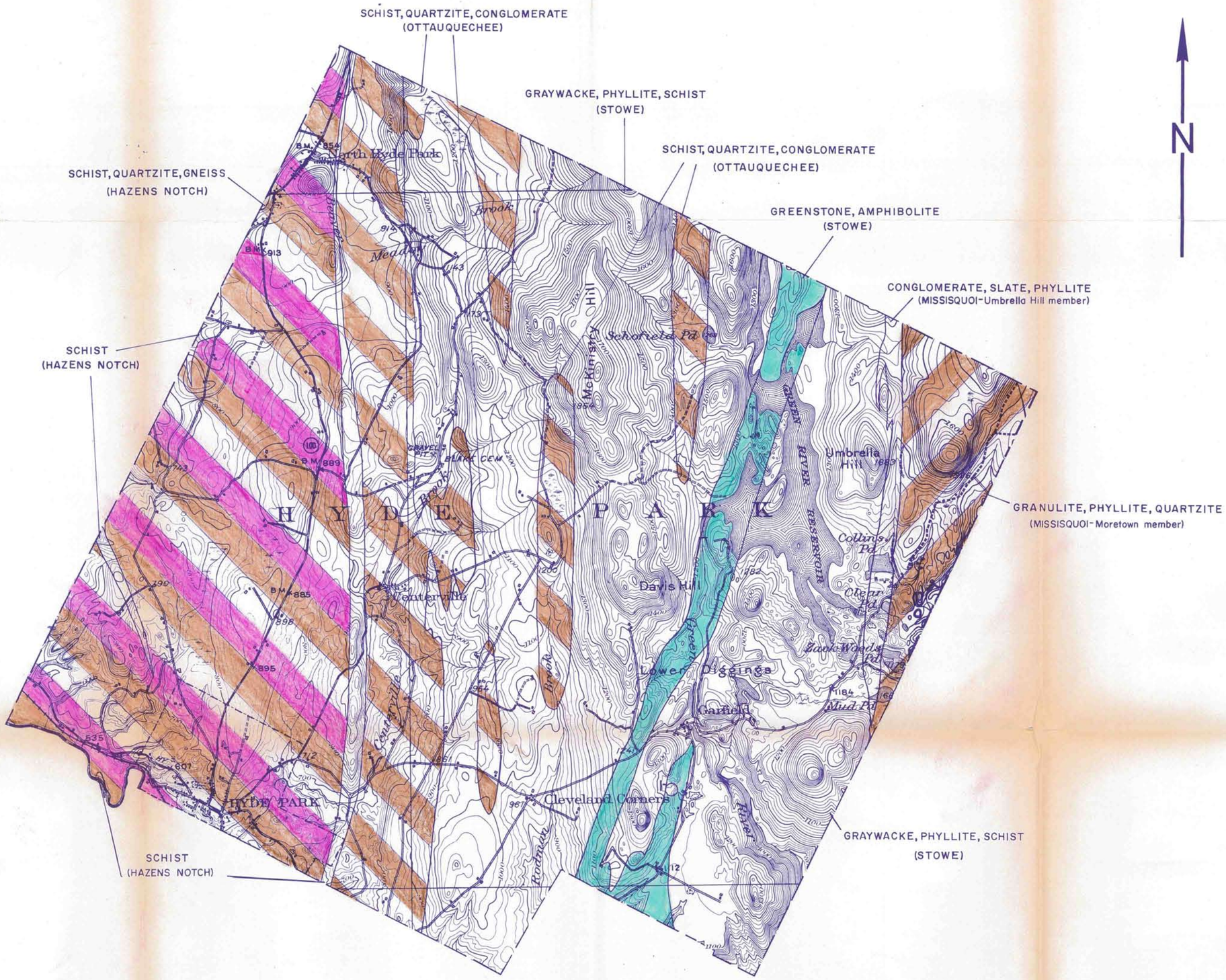
PLATE I

GRANULAR

LAMOILLE COUNTY VT. HWY. DISTRICT NO. 8

REVISIONS

DATE						
BY						



LEGEND

- ROCK, ACCEPTABLE FOR SEC. 704.06 (crushed stone for sub-base)
- ROCK, NOT ACCEPTABLE FOR SEC. 704.06
- EXISTING QUARRY
- GRANITE TO DIORITE (light to intermediate igneous rocks)
- AMPHIBOLITE, GABBRO, DIABASE, METADIABASE, GREENSTONE, TRAP DIKES (basic or dark igneous rocks)
- PERIDOTITE, PYROXENITE, SERPENTINITE (ultra-basic igneous rocks)
- GNEISS
- QUARTZITE
- DOLOMITE
- MARBLE, LIMESTONE
- SCHISTS, SLATES, PHYLLITES, SHALES, CONGLOMERATES
- 3 IDENTIFICATION NUMBER (refer to data sheets)

HYDE PARK

SCALE 1:31,250

1 0.5 0 1 MILE

CONTOUR INTERVAL 20 FEET

1981

ROCK MATERIALS MAP

BY

VERMONT AGENCY OF TRANSPORTATION

MATERIALS AND RESEARCH DIVISION

NOTE: BASED ON U.S.G.S. TOPOGRAPHIC MAPS

PLATE II

ROCK

LAMOILLE COUNTY VT. HWY. DISTRICT NO. 8

REVISIONS

DATE						
BY						