

SURVEY OF HIGHWAY CONSTRUCTION MATERIALS
IN THE TOWN OF BENNINGTON, BENNINGTON COUNTY, VERMONT

prepared by

Engineering Geology Section, Materials Division
Vermont Department of Highways

in cooperation with

United States Department of Commerce
Bureau of Public Roads

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Acknowledgments

The work of this Project was greatly implemented by the cooperation and assistance of many groups and individuals. The following were particularly helpful in carrying out the Project's objectives:

1. Various departments and individuals of the Vermont State Department of Highways, notably the Planning and Mapping Division and the Highway Testing Laboratory,
2. Professor D.P. Stewart of Miami University, Oxford, Ohio,
3. Professor C.G. Doll, Vermont State Geologist, University of Vermont, Burlington, Vermont,
4. United States Department of Commerce, Bureau of Public Roads.

History

The Materials Survey Project was formed in 1957 by the Vermont State Department of Highways with the assistance of the United States Bureau of Public Roads. Its prime objective was to compile an inventory of highway construction materials in the State of Vermont. Prior to the efforts of the personnel of the Survey as described in this and other reports, searches for highway construction materials were conducted only as the immediate situation required. Thus only limited areas were surveyed, and no overall picture of material resources was available. Highway contractors or resident engineers are usually required to locate the materials for their respective projects and have samples tested by the Highway Testing Laboratory. The additional cost of exploration for construction materials is passed onto the State in the form of higher construction costs. The Materials Survey Project was established to minimize or eliminate this factor by enabling the State and its contractors to proceed with information

on material sources available beforehand. Prior knowledge of locations of suitable material is an important factor in planning future 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 for reporting the findings of the Project were designed with their intended use in mind. These maps and data sheets were devised to furnish information of particular use to the contractor or construction man. For maximum benefit, the maps, data sheets, and this report should be studied simultaneously.

Inclosures

Included in this folder are two surface-geology maps, one defining the location of tests conducted on bedrock sources, the other defining the location of tests conducted on granular materials. These maps are derived from 15-minute or 7½-minute quadrangles of the United States Geological Survey enlarged or reduced to 1:31250 or 1" = 2604'. Delineated on the Bedrock Map are the various rock types of the area. This information was obtained from numerous sources: Vermont Geological Survey Bulletins, Vermont State Geologist Reports, United States Geological Survey Bedrock Maps, and the Centennial Geological Map of Vermont, as well as other references.

The granular materials map depicts areas covered by various types of glacial deposits (outwash, moraines, kames, kame terraces, eskers, etc.) by which potential sources of gravel and sand may be recognized. This information was obtained primarily from a survey being conducted by Professor D.P. Stewart of Miami University, Oxford, Ohio, who has been mapping the glacial features of the State of Vermont during the summer months since

1956. Further information was obtained from the Soil Survey (Reconnaissance) of Vermont conducted by the Bureau of Chemistry and Soils of the United States Department of Agriculture, and from Vermont Geological Survey Bulletins, United States Geological Survey Quadrangles, aerial photographs, and other sources. On both maps the areas tested are represented by Identification Numbers. Several tests are usually conducted in each area represented by an Identification Number, the number of such tests being more or less arbitrarily determined either by the character of the material or by the topography.

Also included in this folder are data sheets for both the Bedrock and Granular Materials Survey, which contain detailed information for each test conducted by the Project as well as information obtained from other sources, and including an active card file compiled by the Highway Testing Laboratory. The latter information was gathered over a period of years by many persons and consequently lacks the organized approach and detail required for effective use. The information on the cards varied widely in completeness. Transfer of information from the cards to the data sheets was made without elaboration or verification. When possible, the locations of the deposits listed in the card files have also been plotted on the maps; however, some cards in the file were not used because the information on the location of the deposit was incomplete or unidentifiable. Caution should be exercised wherever this information appears incomplete. This Project does not assume responsibility for the information taken from the card files.

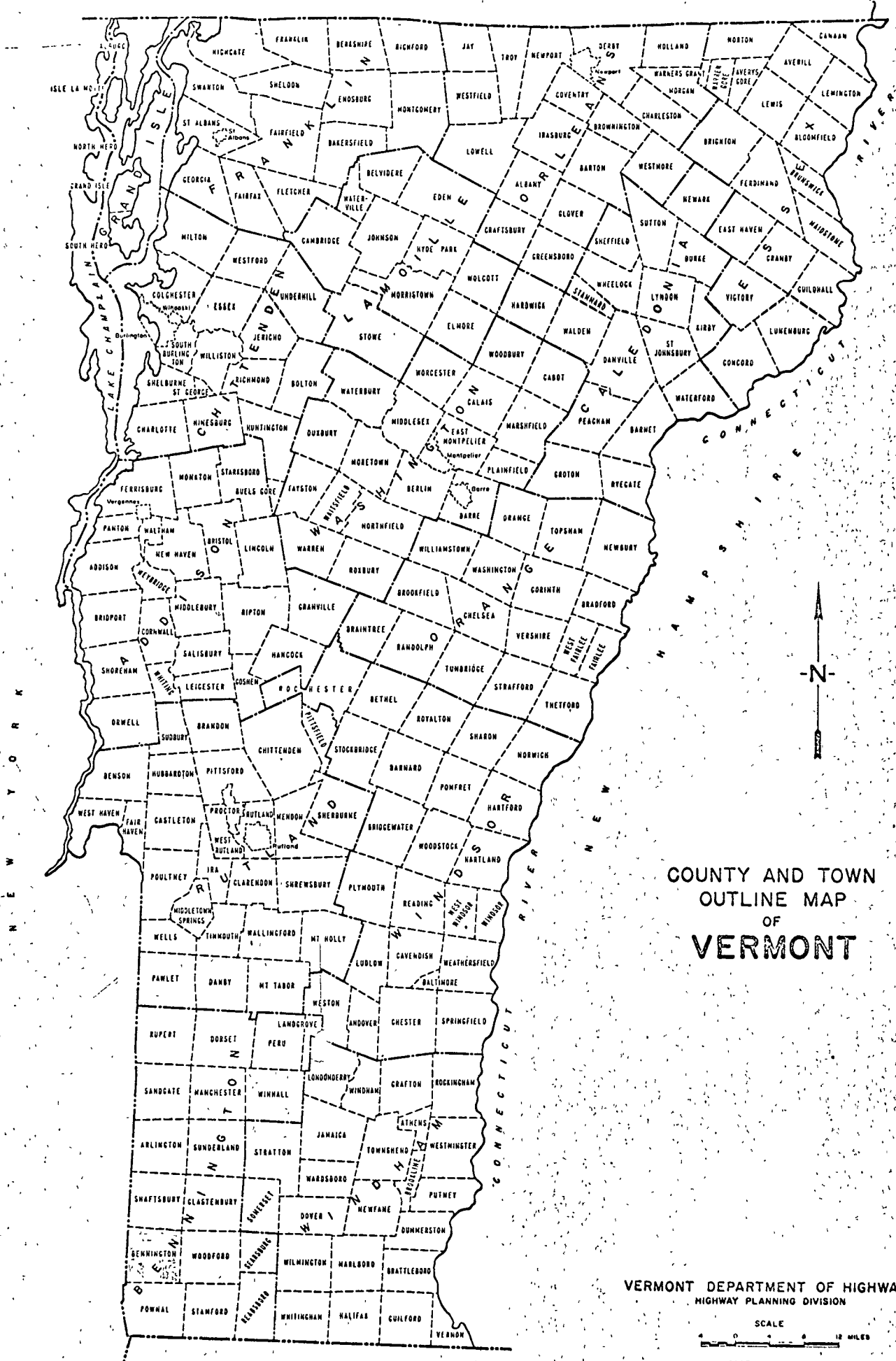
Work sheets contain more detailed information on each test and a detailed sketch of each Identification Number Area. The work sheets and laboratory reports are on file in the office headquarters of this Project.

LOCATION

The town of Bennington is in southwest Bennington County, which county is located at the southwest corner of the State. The town is bounded on the west by New York State, on the north by Shaftsbury, on the east by Woodford, and on the south by Pownal. (See County and Town Outline Map of Vermont on the following page.)

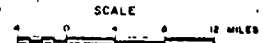
Bennington extends from the western flank of the Green Mountains across the Vermont Valley into the Taconic Range. The Vermont Valley is comprised chiefly of metamorphosed carbonate rocks that were less resistant to erosion than the predominantly siliceous or argillaceous metamorphic rocks of the flanking mountains.

Elevations vary from less than 520 feet in the Walloomsac River valley at the Shaftsbury line to 2,766 feet on a shoulder of Bald Mountain near the northeast corner of the town. Drainage is mainly into the Walloomsac River, thence generally westward into the Hudson, but two or three streams rising on Mount Anthony drain south to the Hoosic River which is joined by the Walloomsac in New York State.



COUNTY AND TOWN
 OUTLINE MAP
 OF
VERMONT

VERMONT DEPARTMENT OF HIGHWAYS
 HIGHWAY PLANNING DIVISION



AUGUST, 1967

SURVEY OF ROCK SOURCES

Procedure for Rock Survey

The routine employed by the project in the survey of possible sources of rock for highway construction is divided into two main stages: office investigation and field investigation. The first is conducted primarily during the winter months and comprises the mapping of rock types as indicated in various reference sources. Many different sources of information were utilized, as indicated in the bibliography. These references differ considerably in dependability due to new developments and studies contributing to the obsolescence of a number of reports. In addition, the results of samples taken by other individuals are analyzed, and the location in which these samples were taken is mapped when possible. In other words, as complete a correlation as possible is made of all the information available concerning the geology of the area under consideration.

The second stage of the investigation is begun in the field by making a cursory preliminary survey over the entire area. The information obtained in this survey, together with the information assimilated in the first stage of the investigation, is employed to determine the areas in which the testing and sampling will be concentrated. When a promising source is encountered as determined not only by rock type but also by volume, accessibility, and the existence of a good working face, chip samples are taken with a hammer and submitted to the Highway Testing Laboratory for testing by the Deval Method (AASHTO T-3). It is kept in mind that the samples taken by the chip method are often in the weathered zone of the outcrop and consequently may show a less satisfactory test result than the fresh material deeper in the body of the rock structure. When deemed necessary, further samples are taken by drilling to a depth of approximately 3 feet and blasting across the strike or trend of the outcrop. When the material is uniform and satisfactory tests result from the chip samples, no further drilling, blasting, or sampling is done, and the material source is included as being satisfactory.

Discussion of Rock and Rock Sources

It should be noted that information on the Rock Materials Map is somewhat simplified. (For a more detailed description of the respective rock formations, see the Summary included in this report.) In the Summary it is apparent that complex metamorphic rocks comprise the greatest portion of the formations within the town of Bennington. Minor amounts of sedimentary rocks, particularly limestone and sandstone, also occur within the town.

Occasionally rocks belonging to the same formation and exhibiting similar characteristics (i.e., color, texture, etc.) may produce different abrasion results due to different physical and chemical properties. Therefore, in no case should satisfactory test results of an area be construed to mean that the same formation, even in the same area, will not later produce unsatisfactory material. This is especially true of metamorphic rocks.

In general, bedrock in the town of Bennington suitable for Item 204, Sub-base of Crushed Rock, rarely occurs as a continuous surface exposure 150 feet or more in length. Most bedrock is covered by a mantle of granular material and vegetation that limits sampling to sporadic outcrops within the linearly measured interval. However, at one locality on Town Highway No. 46 an old limestone quarry provides a continuous surface exposure of about 500 feet. The western half of this quarry, which is located at Map Identification No. 1, is an excellent future source of material. A wear-test performed gave a value of 3.3%. This quarry is located within the Glens Falls-Orwell limestones, undifferentiated.

SURVEY OF SAND AND GRAVEL SOURCES

Procedure for Sand and Gravel Survey

The method employed by the project in the survey of possible sources of sand and gravel for highway construction is divided into two main stages: office investigation and field investigation. The office investigation is conducted primarily during the winter months and comprises the mapping of possible potentially productive areas as indicated from various references. Of these references, the survey of glacial deposits mapped by Professor Stewart proves to be valuable, particularly when used in conjunction with other references such as soil-type maps, aerial photographs, and United States Geological Survey quadrangles. The last two are used in recognizing and locating physiographic features indicating glacial deposits and in studying drainage patterns. In addition, the location of existing pits are mapped when known. The locations in which samples were taken by other individuals are noted and mapped when possible.

The second stage of the investigation is begun in the field by making a cursory preliminary survey over the entire area noting areas which show physiographic features giving evidence of glacial or fluvial deposits. These locations are later examined by digging test pits with a backhoe to a depth of approximately 11 feet and then sampling the material. The samples are submitted to the Highway Testing Laboratory where they are tested for gradation and stone wear, the latter by the Deval Method (AASHO T-4-35).

Discussion of Sand and Gravel Deposits

Available granular materials within the town of Bennington are largely restricted to elevations below 1,000 feet. In general, the materials which are usable for Sub-base of Gravel, Sub-base of Sand, and Granular Borrow were probably the result of glaciofluvial deposition.

According to D. P. Stewart the deposition takes the form of kames and kame moraines in addition to three small eskers at the southeast corner of the town. The results of this inventory substantiated his interpretation of the material at Map Identification No. 56 as an esker, but elsewhere it was inconclusive. More probable was an interpretation of deposition at Map Identification Numbers 53 and 54 as a kame moraine in addition to that at Map Identification Numbers 52 and 55, judging from ice-contact structures observable therein.

Stewart's designated kame moraine of greatest areal extent is located in the north-central part of the town. It is to be noted that within this feature Map Identification Numbers 22, 24, 27, 32, and 34 all indicate material suitable for Item 201, Sub-base of Gravel. Additionally, Map Identification Numbers 22, 24, 25, 26, 33, and 34 are sources of Sub-base of Sand, Item 202. An additional source of Item 201 is a small outlier from this kame moraine at Map Identification No. 29.

The bluffs adjacent to the south and southeast bounds of Bennington College were the locus of another kame moraine according to Stewart. However, at only two locations (Map Identification Numbers 17 and 18) do materials meet requirements for Item 201, Sub-base of Gravel and Item 202, Sub-base of Sand respectively.

Other major potential sources of materials are areas accorded by D. P.

Stewart to outwash deposition. However, this inventory discovered that at several places material was more likely glacial till unsuitable for Items 105, 201, or 202. A notable exception at Map Identification No. 39 is an area of at least 53,000 square yards of material suitable for Item 201, Sub-base of Gravel. Additionally, at Map Identification Numbers 1, 3, and 4 were found other deposits suitable for Item 201. Deposition at Map Identification No. 10 was probably emplaced as outwash as were acceptable gravels at Map Identification Numbers 11, 12 and acceptable Sub-base of Sand, Item 202 at Map Identification Numbers 4, 5, and 9.

D. P. Stewart outlined materials of lesser areal extent as glaciolacustrine lake sands. Nowhere within his outlines was found material suitable either for the two Sub-base designations or for Granular Borrow. See Map Identification Numbers 2, 15, 50, and 51.

Finally, southeast of the city of Bennington in the so-called "Desert", Stewart designated a large pit complex to be within a delta gravel. Tests within this feature performed at Map Identification Numbers 45, 46, and 47 proved acceptable for Sub-base of Sand, Item 202.

SUMMARY OF ROCK FORMATIONS IN THE TOWN OF BENNINGTON

Hortonville Formation - Black, carbonaceous, and pyritic slate and phyllite, locally sandy; brown-weathered limy beds are common near base.

Glens Falls-Orwell Limestones (undifferentiated) - Combined where deformation has made the two lithologies indistinguishable. Thick-bedded sub-lithographic to lithographic dove-gray weathered limestone cut by white calcite veins (Orwell) is generally succeeded by thin-bedded, dark blue-gray, coarsely granular limestone. Both lithologies are fossiliferous.

Bascom Formation - Interbedded dolomite, limestone or marble, calcareous sandstone, quartzite, and limestone breccia; irregular dolomitic layers, thin sandy laminae, and slaty or phyllitic partings characterize limestone and marble of lower, middle, and upper parts of the Bascom, respectively; south of West Rutland it includes some of Chipman formation.

Shelburne Formation - Chiefly a white marble or gray limestone characterized by raised reticulate lines of gray dolomite on the weathered surface; includes Columbian marble of the marble quarries.

Clarendon Springs Dolomite - Fairly uniform, massive, smooth-weathered gray dolomite characterized by numerous geodes and knots of white quartz; quartz sandstone and irregular masses of chert are near the top.

Winooski Dolomite - Buff-weathered, pink, buff, and gray dolomite; beds 4 inches to 1 foot thick separated by thin, protruding, red, pink, green, and black siliceous partings.

Monkton Quartzite - Distinctively red quartzite interbedded with lesser buff and white quartzite and relatively thick sections of dolomite like that of the Winooski; the quartzites thin to the east, and they become gray and phyllitic to the east and south.

Dunham Dolomite - Buff-weathered siliceous dolomite, pink and cream mottled or buff to gray on fresh surface; lower part is massive and upper part is sandy and resembles the Winooski dolomite.

Cheshire Quartzite - Very massive, white to faintly pink or buff vitreous quartzite near the top in west-central and southwestern Vermont; predominantly a less massive-appearing mottled gray, somewhat phyllitic quartzite; dolomitic sandstone and conglomerate near the base of the formation in west-central Vermont apparently grades southward into the Dalton formation.

St. Catherine Formation - Purple, gray-green, and variegated slate and phyllite containing minor interbeds of white to green quartzite; locally albitic.

GLOSSARY OF SELECTED GEOLOGIC TERMS

Argillaceous - Containing or consisting of clay. Commonly used to indicate the presence of clay; as argillaceous sandstone.

Carbonate Rocks - Products of a process of chemical decomposition by which carbon dioxide contained in water combines with the oxides of calcium, magnesium, potassium, sodium, and iron. As a result of this union carbonates or bicarbonates of these metals are produced, including dolomite, siderite, calcite, and other less plentiful minerals.

Delta - A predominantly alluvial deposit built out by a stream into the sea or other body of water. Usually having the typical form of the Greek letter delta.

"Desert" - Local name for a specific region in Bennington so-called because of the sparseness of its vegetation.

Esker - A relatively long, narrow, winding ridge of mixed sand and gravel. In longitudinal profile their crests are seen to be sinuous. They are considered to have been deposited by streams of meltwater flowing through crevasses and tunnels in stagnant ice sheets.

Glaciofluvial - A term used to denote formation by or relation to streams within, upon, or emerging from glacial ice.

Glaciolacustrine - A term used to denote formation by or pertaining to deposition in quiescent waters of glacial lakes.

Ice-Contact - Refers to sediments which have accumulated in contact with stagnant or wasting ice. They assume the varied topographic forms expressed by eskers, kames, and kame terraces.

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

Kame Moraine - An accumulation of material deposited directly from the frontal portion of the glacial ice and partially sorted by water action. Deposits may take the form of coalescent knolls, hummocks, ridges, etc.

Limestone - A bedded sedimentary deposit consisting chiefly of calcium carbonate. The most important and widely distributed of the carbonate rocks. The percentage of calcium carbonate ranges from 40 percent to more than 98 percent. Common impurities are clay and sand.

Metamorphic Rocks - Rocks that owe their distinctive character to the transformation of pre-existing material either through intense heat or pressure or both.

Sandstone - A consolidated rock composed of sand grains cemented together. Sandstone fractures around the grains rather than through them as in quartzites; the broken surface of a sandstone therefore has a gritty feel and loose grains are usually present.

Sedimentary Rocks - Rocks composed of sediment; mechanical, chemical, or organic. They are formed through the agency of water, wind, glacial ice, or organisms and are deposited at the surface of the earth at ordinary temperatures. The materials from which they are made must originally have come from the disintegration and decomposition of older rocks, chiefly igneous.

Siliceous - Containing or pertaining to silica (silicon dioxide, SiO_2) or partaking of its nature.

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

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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 in April, 1964.

Item 105, Granular Borrow

"Article 105.02 - Materials. The granular borrow shall be obtained from approved sources and shall consist of satisfactorily graded, free-draining, hard durable stone and coarse sand practically free from loam, silt, clay, and organic matter.

"The sand portion (material passing the No. 4 screen) shall have not more than ten percent (10%) passing the No. 270 mesh sieve and shall show a color of not more than three and one-half ($3\frac{1}{2}$) as determined by the colorimetric test described in AASHO Method of Test, Designation T-21.

"When used in connection with fine grading or in fills where piling is to be driven, the granular material shall all pass the nine-inch (9") square-opening screen."

Item 201, Sub-base of Gravel

"Article 201.02 - Materials. The gravel shall consist of material reasonably free from silt, loam, clay or organic matter. It shall be obtained from approved sources and meet the following requirements:

"Not less than forty percent (40%) stone shall be retained on No. 4 sieve.

"The percent of wear shall be not more than twenty-five (25) when tested by laboratory methods using Method T-4 or more than forty (40) when tested by AASHO Method T-96.

"The stone portion of the gravel shall be uniformly graded from coarse to fine, and the maximum-size particles shall not exceed two-thirds (2/3) of the layer being spread.

"The sand portion, when tested by laboratory methods using Method AASHO T-27, shall meet the grading requirements set up in the following table:

| Minimum Percent of Stone | Percent Passing Square Openings | Percent Passing Square Openings |
|-----------------------------|------------------------------------|------------------------------------|
| | No. 100 | No. 270 |
| 40 | 0-15 | 0-3 |
| 50 | 0-15 | 0-4 |
| 60 | 0-15 | 0-5 |
| 70 | 0-15 | 0-6 |

"The sand shall show a color of not more than three and one-half (3½) as determined by the colorimetric test described in the AASHO Method of Test, Designation T-21."

Item 202, Sub-base of Sand

"Article 202.02 - Materials. The sand shall consist of material reasonably free from silt, loam, clay, or organic matter. It shall be obtained from approved sources and meet the following requirements:

"The sand, when tested by laboratory methods using Method AASHO T-27, shall meet the grading requirements set up in the following table:

| Square Openings | Percent Passing |
|-----------------|-----------------|
| 1½" | 95-100 |
| 5/8" | 80-100 |
| No. 4 | 70-100 |
| No. 100 | 0-16 |
| No. 270 | 0-5 |

"The sand shall show a color of not more than three and one-half (3½) as determined by the colorimetric test described in the AASHO Method of Test, Designation T-21."

Item 204, Sub-base of Crushed Rock

"Article 204.02 - Materials. The materials for sub-base, filler, and sand cushion shall be obtained from approved sources and meet the following requirements:

A - Crushed Rock. "The crushed rock shall be uniformly graded, crusher-run material and shall be free from dirt. The ledge from which this material is obtained shall be stripped and cleaned before blasting. Conical stockpiling, or any other method of stockpiling which causes segregation of aggregates, will not be permitted.

"The crushed rock, when tested by laboratory methods using Method AASHO T-27, shall meet the grading requirements set up in the following table:

| Square Openings | Percent Passing |
|-----------------|-----------------|
| 4" | 95-100 |
| 1½" | 25-50 |
| No. 4 | 0-15 |

"The percent of wear shall not be more than eight (8) when tested by laboratory methods using Method AASHO T-3 or more than forty (40) when tested by AASHO Method T-96."

Item 205, Sub-base of Crushed Gravel

"Article 205.02 - Materials.

A - Crushed Gravel. "The crushed gravel shall consist of material reasonably free from silt, loam, clay, or organic matter. It shall be obtained from approved sources and produced by a crusher adjusted to deliver a product uniformly graded from coarse to fine.

"When tested by laboratory methods using Method AASHO T-27, it shall meet the grading requirements as set forth below:

| | | Square Openings | Percent Passing |
|-------------------------------|---------------|-----------------|-----------------|
| Sub-base of Crushed Gravel | Coarse-Graded | 4" | 100 |
| | Item 205-A | No. 4 | 25-50 |
| | Fine-Graded | 1½" | 95-100 |
| | Item 205-B | No. 4 | 30-60 |

"At least thirty percent (30%) by weight of the stone content of the crushed gravel, that is, the material retained on the No. 4 screen, shall have a minimum of one (1) fractured face as determined by actual count from the sample submitted to the laboratory.

"The percent of wear shall not be more than twenty (20) when tested by laboratory methods using Method AASHO T-4 or more than thirty-five when tested by AASHO Method T-96.

B - Sand. "The sand content of the crushed gravel, that is the material passing the No. 4 screen, when tested by laboratory methods using Method AASHO T-27, shall meet the grading requirements set up in the following table:

| Square Openings | Percent Passing |
|-----------------|-----------------|
| No. 100 | 0-18 |
| No. 270 | 0-8 |

"The sand shall show a color of not more than three and one-half ($3\frac{1}{2}$) as determined by the colorimetric test described in the AASHO Method of Test, Designation T-21."

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 1

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------|------------------|-----------------------|------------------|---|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| 1 | 1 | 1967 | 1-6 | 0-1 | No | 100 | 100 | 81.7 | 28.6 | 13.1* | 1 | --- | --- | Owner: C. Turner. Area consists of the east end of a terrace that is bounded on the north by the town of Shaftsbury, on the east by Paran Creek, and on the west by Lake Paran. Formerly access was north from Town Highway No. 10 via bridge across Paran Creek, but bridge is destroyed and access is now through Shaftsbury. Test #1 was located about 135' south of edge of terrace and N5°E of bridge site. Material is 0-1' sod; 1'-6' stony silty sand with clay that is not acceptable for Item 105' 6'-? cobbles. |
| | 2 | 1967 | 0.5-6 | 0-0.5 | No | 56.3 | 41.2 | 31.1 | 8.0 | 3.0 | 1 | 12.8% | Gravel | Test #2 was on southernmost edge of terrace 145' N27°W of Test #1. Material is 0-0.5' sod; 0.5'-6' sandy gravel becoming sandier with depth that is acceptable for Items 201 and 105. |
| | 3 | 1967 | 0.5-6 | 0-0.5 | No | 91.3 | 59.7 | 38.5 | 11.0 | 5.0 | 1 | 11.8% | Gravel | Test #3 was on lobe of terrace 350' N37°W of Test #2. Material is 0-0.5' sod; 0.5'-2.5' dirty fine gravel; 2.5'-6' sandy gravel becoming sandier with depth. Interval below sod meets requirements for Items 201 and 105. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 2

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|------------------|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | 4 | 1967 | 2-6.5 | 0-2 | No | 58.2 | 49.5 | 38.5 | 10.0 | 4.5 | 1 | 14.0% | Gravel | Test #4 was on edge of terrace 400' due east of Test #3 and N30°E of Test #2. Material is 0-2' sod and loam; 2'-6.5' sandy gravel with cobbles becoming sandier with depth that is acceptable for Items 201 and 105. |
| | 5 | 1967 | 2.5-6.5 | 0-2.5 | No | 66.1 | 51.4 | 42.1 | 5.0 | 3.0 | 1 | 11.8% | Gravel | Test #5 was south of rock wall at point 400' N40°E of Test #3 and 310' N30°W of Test #4. Material is 0-2.5' sod and cobbly loam; 2.5'-6.5' sandy gravel that is acceptable for Items 201 and 105. |
| 2 | 1 | 1967 | 1-8 | 0-1 | No | 100 | 100 | 100 | 91.0 | 14.0 | 1 | --- | --- | Owner: North Bennington Village. Area is a conical hill east of the intersection of Depot and Houghton Streets. Material is 0-1' sod; 1'-8' very fine sand to silt that fails to meet the requirements for Item 105. |
| 3 | 1 | 1967 | 1.5-5 | 0-1.5 | No | 70.4 | 51.2 | 30.2 | 8.0 | 1.5 | 1 | 11.1% | Gravel | Owner: Fred Welling. Area is the western part of a terrace south of a coal shed on the Rutland Railroad west of Clarence Vadakin property line fence, north of a baseball field and east of Paran Creek. Test #1 was about 215' south of railroad tracks and 55' west of property line fence. Material is 0-0.5' sod; |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 3

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHTO T-21 | Abrasion AASHTO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|----------|------|------|-------------|-------------------|------------------------|------------------|--|
| | | | | | | 1½" #10 | 5/8" #20 | #4 | #100 | #270 | | | | |
| | 2 | 1967 | 0-2.5 | --- | No | N O T S A M P L E D | | | | | | | | 0.5'-2' loamy coarse gravel; 2'-5' sandy gravel with an occasional cobble that is acceptable for Items 201 and 105; 5'-7.5' medium gray sand; 7.5'-9' silty fine sand. Sand portion was not sampled because of a cave-in. Test #2 was 195' S20°W of Test #1 where about 4.5' of material had been stripped just north of baseball field. Material is sandy cobbles. Test #3 was at point near edge of terrace about 150' west of Test #1. Material is 0-1' sod; 1'-3' cobbly gravel with loam; 3'-6' cobbly gravel that is acceptable for Items 201 and 105. Material at Tests #1 and #3 shows definite bedding planes. |
| | 3 | 1967 | 2-6 | 0-2 | No | 47.5 | 32.9 | 23.5 | 8.0 | 5.0 | 2 | 8.2% | Gravel | |
| 4 | 1A | 1967 | 2.5-4.5 | 0-2.5 | No | 100 | 100 | 89.7 | 1.8 | 0.8 0.7* | 1 | --- | Sand | Owner: Clarence Vadakin. Area is the eastern part of a wooded terrace lying southeast of a coal shed on the Rutland Railroad east of Fred Welling property line fence. Test #1 was about 140' south of railroad tracks and 150' east of property line fence. Material is 0-2.5' loamy silt; 2.5'-3' gravel lens, 3'-4.5' coarse sand that |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 4

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|---------------------|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | 1B | 1967 | 4.5-8 | --- | No | 85.6 | 70.1 | 50.8 | 3.0 | 1.0 | 1 | 11.3% | Gravel | meet requirements for Items 202 and 105 as Test #1A; 4.5'-8' sandy gravel that is acceptable for Items 201 and 105 as Test #1B. |
| 5 | 1 | 1967 | 1-3 | 0-1 | No | 100 | 100 | 97.9 | 6.9 | 3.0 2.9* | 1 | --- | Sand | Owner: Mrs. George Elwell. Area consists of the north end of a large field north of George Street. Test #1 was at edge of woods about 130' from north-east corner. Material is 0-1' - sod and loam; 1'-3' brown sand that is acceptable for Items 202 and 105; 3'-? cobbles and boulders. |
| | 2 | 1967 | 1.5-5 | 0-1.5 | No | 100 | 100 | 96.9 | 49.4 | 8.0 | 1 | --- | Gran. Borrow (Sand) | Test #2 was at west edge of field about 100' south of northwest corner. Material is 0-1.5' sod and loam; 1.5'-5' brown to white silty sand that is acceptable for Item 105, but fails to meet requirements for Item 202; 5'-? cobbles and boulders. |
| 6 | 1 | 1967 | 1.5-6 | 0-1.5 | No | 100 | 100 | 81.9 | 29.5 | 11.5* | 1½ | --- | --- | Owner: Mrs. George Elwell. Area is a triangular field next to woods north-northeast of the north end of George Street. Test #1 was at northwest corner of field. Material is 0-0.5 sod; |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 5

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|---|---------|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | | | | | | N O T S A M P L E D | | | | | | | | |
| | | | | | | | | | | | | | 0.5'-1.5' loamy gravel; 1.5'-6' - fine sand and silt with some gravel and an occasional boulder that fails to meet requirements for Item 105. | |
| 7 | 1 | 1967 | 0.5-5 | 0-0.5 | No | | | | | | | | Owner: Miss Shirley Stanwood. Area consists of the north end of a large field north of Mechanic Street. Test #1 was at north end of field just west of intersection of rock walls. Material is 0-0.5' sod; 0.5'-5' loamy silt with cobbles and an occasional boulder that was not sampled. | |
| 8 | 1 | 1967 | --- | 0-2.5 | No | | | | | | | | Owner: Miss Shirley Stanwood. Area is an overgrown field north of the intersection of Town Highways No. 10 and No. 11. Test #1 was near the southwest corner of field. Material is 0-2.5' sod and loam; ledge rock (probably the Winooski Dolomite). It was not sampled. | |
| 9 | 1 | 1967 | 0-9 | --- | Yes | 100 | 100 | 82.8 | 4.1 | 2.5 2.1* | 1 | --- | Sand Owner: McCullough Estate. Area comprises a recently worked pit on a topsoil stripped hillside west of Park Street at point S35°W of Hall farmhouse. Test #1 was in southwest face. Material is a coarse sand stony largely of slate origin | |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 6

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|----------------------|---|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| 10 | 1 | 1967 | 0-4.5 | --- | Yes | 100 | 100 | 78.9 | 3.2 | 1.5 1.1* | 1 | --- | Sand | with a few quartzite pebbles that is acceptable for Items 202 and 105. Owner: W. R. Scott. Area consists of an old pit and a pasture that represents its possible southeastward extension. Pit is south of Town Highway No. 19 near the New York State Line. Test #1 was in north-central part of floor. Material is 0-4.5' stony sand that is acceptable for Items 202 and 105; 4.5'-? olive green clay. |
| | 2A | 1967 | 1-7 | 0-1 | Yes | 75.2 | 56.4 | 37.6 | 3.0 | 1.5 | 1 | 11.0% | Gravel | Test #2 was at north end of east face. Test #2A material is 0-1' sod; 1'-7' sandy gravel acceptable for Items 201 and 105. |
| | 2B | 1967 | 7-10.5 | --- | Yes | 89.0 | 86.5 | 77.7 | 4.7 | 1.8 1.4* | 1 | --- | Gran. Borrow (Sand) | Test #2B comprised material below Test #2A from 7'-10.5' stony sand that is acceptable for Item 105, but does not meet requirements for Item 202 because of an excess retained on the 1½" screen. |
| | 3 | 1967 | 4-9 | 0-4 | No | 77.8 | 60.3 | 41.9 | 11.0 | 6.0 | 1 | 19.6% | Gran. Borrow (Grav.) | Test #3 was at point in pasture 0.04 mile S45°E of Test #2. Material is 0-1' sod; 1'-4' cobbly loam; 4'-9' poorly graded medium gravel with coarse angular sand. Because |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 7

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Over- burden (Ft) | Exist- ing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------------|----------------------|-------------------------|----------------------------|-------------------------|----------------------|-----------------------------|------|------|------|------|------------------------|-----------------------------|--|--|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| | 4 | 1967 | --- | 0-3 | No | N O T S A M P L E D | | | | | | | of a slight excess passing the #270 sieve, it barely fails to meet gradational requirements for Item 201. It is acceptable for Item 105. Test #4 was located at point 0.04 mile due west of Test #3 just north of white pine. Material is 0-3' loamy silt that was not sampled; 3'-? slate boulders. | |
| | 5 | 1967 | 2.5-7 | 0-2.5 | No | 75.9 | 62.6 | 44.2 | 7.0 | 3.5 | 1 | 21.0% | Gravel | Test #5 was located at point 110° S20°W of Test #2 and 135° N75°W of Test #3. Material is 0-1' sod; 1'-2.5' cobbly loam; 2.5'-7' sandy gravel that is acceptable for Item 201. |
| 11 | 1 | 1967 | 2.5-6.5 | 0-2.5 | Yes | 61.2 | 44.7 | 25.4 | 5.0 | 3.0 | 1 | 13.8% | Gravel | Owner: McCullough Estate. Area consists of a pit north of Town Highway No. 8 at point 0.28 mile northwest of its junction with Park Street. Test #1 was in north face. Material consists of 0-1' sod; 1'-2.5' cobbly loam; 2.5'-6.5' cobbly dirty gravel that is acceptable for Items 201 and 105; 6.5'-9.5' probably continuation of same, but sloughed in overburden makes hand sampling impractical. |
| 12 | 1 | 1967 | 12.5-15.5 | 0-1 | Yes | 60.1 | 46.6 | 37.6 | 8.0 | 4.5 | 1 | 11.0% | Gravel | Owner: McCullough Estate. Area consists of a pit west |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 8

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|-----------------------------|------|------|------|-------------|---------------------|--------------------------|----------------------|--|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| | | | | | | | | | | | | | | of Park Street about 0.24 mile west of its intersection with Stony Church Hill. Test #1 was in center of north face. Material is 0-1' sod; 1'-12.5' not exposed and not sampled, but probably cobbly; 12.5'-15.5' sandy gravel with 30% cobbles. That is acceptable for Items 201 and 105. |
| 13 | 1 | 1967 | 1.5-4.5 | 0-1.5 | Yes | 56.4 | 47.1 | 33.4 | 16.0 | 7.0 | 1 | 13.6% | Gran. Borrow (Grav.) | Owner: Mrs. May Murphy. Area comprises a gravel pit north of Town Highway No. 19 and N65°W of Murphy residence. Test #1 was north of pit at point 33' N65°E of C.V.P. Co. pole #128. Material is 0-1.5' sod and loam; 1.5'-4.5' sandy gravel above poorly bedded silty clay that is acceptable for Item 105, but fails to meet requirements for Item 201 because of slight excess passing the #100 and #270 sieves. |
| 14 | 1 | 1967 | 22-27 | 0-1.5 | Yes | 100 | 100 | 67.6 | 4.0 | 1.8 1.2* | 1 | --- | Gran. Borrow (Sand) | Owner: Perle Corey. Area is an old pit northwest of Corey residence on Vermont Route 67A that is bounded on the north by Bennington College property line fence. Test #1 was in lower face 115' north of Vermont Route |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 9

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks | | |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|----------------------|---|---|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | | | |
| | | | | | | | | | | | | | | 67A. Material is slaty coarse sand that is acceptable for Item 105. A slight excess held by the #4 screen makes it unacceptable for Item 202. | | |
| 15 | 1 | 1967 | --- | 0-2.5 | No | N | O | T | S | A | H | P | L | E | D | Owner: Harold Hilliard, Sr. Area is a field north of Town Highway No. 19 crossed by C.W.P. Co. power lines. Test #1 was at high point—N62°W of Hilliard house and barn. Material is 0-1' sod; 1'-2.5' pebbly loamy silt that was not sampled; 2.5'-? gray bedrock (probably Shelburne limestone). |
| 16 | 1A | 1967 | 4-14 | 0-4 | Yes | 74.1 | 63.3 | 38.9 | 4.0 | 2.0 | 1 | 25.9% | Gran. Borrow (Grav.) | Owner: Bennington College. Area is a large pit west of the intersection of Town Highway No. 71 with Town Highway No. 11. Test #1 was in south face near east end of pit. Material consists of interbedded sands, some cross-bedded gravels overlying the sands, some well-cemented, and an infrequent silty clay lens. Test #1A barely fails to meet abrasion requirements for Item 201. | | |
| | 1B | 1967 | 14-20 | --- | Yes | 100 | 100 | 47.3 | 1.4 | 1.0 | 1 | --- | Gran. Borrow (Grav.) | Test #1B is acceptable for Item 105. There was insufficient proper size stone for wear test. | | |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 10

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|---------------------|--|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| 17 | 1 | 1967 | 0.5-7 | 0-0.5 | Yes | 89.6 | 61.9 | 37.1 | 5.0 | 3.0 | 1 | 16.7% | Gravel | Owner: Roger Biddle. Area comprises a pit south-east of Biddle residence on Town Highway No. 71. Test #1 was of floor in center of pit. Material is 0-0.5' loamy silt; 0.5'-7' well-graded sandy gravel with cobbles that is acceptable for Items 201 and 105. |
| | 2 | 1967 | 1.5-9 | 0-1.5 | Yes | 100 | 93.4 | 77.0 | 1.5 | 1.0 0.8* | 1 | --- | Sand | Test #2 was in center of west face. Material is 0-1.5' loamy sand; 1.5'-9' gravelly sand that is acceptable for Items 202 and 105. |
| 18 | 1 | 1967 | 3-8 | 0-3 | Yes | 100 | 100 | 72.3 | 15.9 | 7.0 5.0* | 1 | --- | Sand | Owner: Bennington College. Area consists of a pit at the end of old trolley grade northeast of Bennington College gate on Vermont Route 67A. Test #1 was in lower face near north end of pit. Material is 0-3' sod and loam; 3'-? sloughed in gravelly loam; ?-8' silty pebbly sand that is acceptable for Items 202 and 105. |
| 19 | 1A | 1967 | 1-10 | 0-1 | Yes | 95.8 | 86.0 | 68.6 | 2.0 | 1.5 | 1 | --- | Gran. Borrow (Sand) | Owner: Duncan Campbell. Area is a bank north of old trolley grade that apparently connects with north face of pit at Map Identification No. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 11

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks | | |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|---------------------|--|---|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | | | |
| | | | | | | | | | | | | | | | | |
| | 1B | 1967 | 10-22 | --- | Yes | 90.3 | 86.4 | 82.5 | 24.0 | 6.3 5.2* | 1 | --- | Gran. Borrow (Sand) | 18. Test #1A was in upper bank. Material is 0-1' sod; 1'-10" interbedded fine gravel and stony sand that is acceptable for Item 105. Test #1B was below Test #1A in lower bank. Material is 10'-22' silty sand, stony toward base that is unacceptable for Item 202, because of an excess passing the #100 sieve. It is acceptable for Item 105. | | |
| 20 | 1 | 1967 | 0.5-3 | 0-0.5 | No | N | O | T | S | A | M | P | L | E | D | Owner: Jerrald Greenberg. Area is a large field south of Town Highway No. 71 and southwest of the Rutland Railroad. Test #1 was 45' east of wire fence and 150' N35°W of C.W.P. Co. triple utility poles. Material is 0-0.5' sod; 0.5'-3' silty loam with stones that was not sampled; 3'-? ledge or large boulder. |
| | 2 | 1967 | 0.5-3 | 0-0.5 | No | N | O | T | S | A | M | P | L | E | D | Test #2 was at point in field south-southeast of Test #1 and 150' N5°E of angle surrounding Map Identification No. 21. Material is 0-0.5' sod; 0.5'-3' silty loam with cobbles that was not sampled. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 12

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks | | |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|------------------|--|---|---|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | | | |
| 21 | 1 | 1967 | 0.5-2 | 0-0.5 | Yes | N | O | T | S | A | M | P | L | E | D | Owner: Wm. H. Morse. Area consists of a grown-in pit east of the Morse residence on Vermont Route 67A. Test #1 was halfway up bank at point N80°E of Morse residence. Material is 0-0.5' loam and silt; 0.5'-2' silty-slate gravel not sampled; 2'-? clay. |
| 22 | 1 | 1967 | 11-17.5 | 0-11 | Yes | 100 | 100 | 96.0 | 1.0 | 0.5 | 1 | --- | Sand | Owner: Wm. H. Morse. Area comprises the old Johnson pit south of Town Highway No. 13. Test #1 was in face near south end of pit. Material is 0-1' loamy gravel; 1'-11' sandy cobbles; 11"-17.5' stony clean fine sand that is acceptable for Items 202 and 105. | | |
| | 2 | 1967 | 0-8 | --- | Yes | 100 | 100 | 100 | 89.0 | 29.0 | 1 | --- | --- | Test #2 was in floor 35' N20°E of Test #1. Material is 0-3' fine clean sand; 3'-8' silt was rejected for Item 105. | | |
| 23 | 1 | 1967 | 38-43.5 | 0-2.5 | Yes | 100 | 100 | 100 | 76.0 | 26.0 | 1 | --- | --- | Owner: Wm. H. Morse. Area consists of a high bank extending south from Map Identification No. 22 that represents east scarp of terrace north of Map Identification No. 25. Test #1 was at point about | | |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 13

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|---------------------|---|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| | 2A | 1967 | 15.5-19 | 0-2.5 | Yes | 77.2 | 63.3 | 46.5 | 2.0 | 1.0 | 1 | 12.2% | Gravel | 0.02 mile north of south end of one-eighth mile long bank. Material is 0-2.5' loamy overburden; 2.5'-38' not accessible; 38'-43.5' sandy silt that was rejected for Item 201. Test #2 was in face of small pit about 0.07 mile north of Test #1. Material is 0-2.5' stony loamy sand; 2.5'-15.5' not accessible; 15.5'-19' cobbly clean gravel. The last interval was sampled as Test #2A and meets requirements for Items 201 and 105; 19'-22' pebbly clean sand with stones that is acceptable for Item 105, but is unacceptable for Item 202 because of an excess retained on the 1 1/2 inch screen. |
| | 2B | 1967 | 19-22 | --- | Yes | 88.1 | 88.1 | 82.2 | 2.5 | 1.0 0.8* | 1 | --- | Gran. Borrow (Sand) | |
| 24 | 1A | 1967 | 0-5.5 | --- | Yes | 76.9 | 59.6 | 43.8 | 3.0 | 1.8 | 1 | 14.0% | Gravel | Owner(s): Frank and Stephen Rice. Area is comprised of the northwest end of a large pit north of Town Highway No. 14. Test #1 was in north face of upper level. Material is 0-2.5' cobbly gravel; 2.5'-5.5' sandy gravel. These intervals were sampled as Test #1A and met the requirements for Items 201 and 105. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 14

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|----------------------|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | | | | | | | | | | | | | | |
| | 1B | 1967 | 5.5-8.5 | --- | Yes | 100 | 100 | 95.9 | 7.6 | 2.0 1.9* | 1 | --- | Sand | Test #1B was taken of a 5.5'-8.5' pebbly sand interval below Test #1A that is acceptable for Items 202 and 105. |
| | 2 | 1967 | 0.5-4 | 0-0.5 | No | 67.9 | 47.3 | 30.1 | 12.0 | 6.5 | 1 | 8.2% | Gran. Borrow (Grav.) | Test #2 was at possible extension 100' N40°W of Test #1. Material is 0-0.5' loamy clay; 0.5'-4' well-consolidated sandy coarse gravel that barely fails to meet requirements for Item 201, because of a slight excess passing the #270 sieve. It is acceptable for Item 105. |
| 25 | 1 | 1967 | 0-8.5 | --- | Yes | 100 | 100 | 97.0 | 14.5 | 3.8 3.7* | 1 | --- | Sand | Owner: Alden Harbour. Area is comprised of the east end of a large pit north of Town Highway No. 14. Test #1 was in floor near north face of northeast extension. Material is 0-8.5' silty fine sand with calcareous shells that is acceptable for Items 202 and 105. |
| | 2 | 1967 | 4-29 | 0-4 | Yes | 100 | 100 | 100 | 38.0 | 8.0 | 1 | --- | Gran. Borrow (Sand) | Test #2 was in north face of northeast extension. Material is 0-4' variable overburden of clay and gravel; 4"-29' cross-bedded fine sands with silt seams that has an excess passing the #100 and #270 sieve making it unacceptable for Item 202. It meets requirements for Item 105. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 15

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|---------------|------------------|-----------------------|---------------------|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | 3 | 1957 | --- | --- | Yes | 64.0 | 48.7 | 28.3 | 2.0 | 1.0 | 1 | 9.0% | Gravel | Test #3 was taken by laboratory personnel in 1957. It was in south face of pit (probably same as delineated here as northeast extension) and was acceptable for Item 201. |
| 26 | 1 | 1967 | 0-11 | --- | Yes | 100 | 100 | 99.1 | 18.8 | 11.0 10.9* | 1 | --- | --- | Owner: Alden Harbour. Area comprises southwest end of large pit north of Town Highway No. 14. Test #1 was in extreme southwest face of pit. Material stripped of overburden; 0-4' clean fine sand; 4'-6' sand and silt; 6'-8.5' clean fine sand; 8.5'-10' silt with stones; 10'-11' coarse clean sand all of which was tested collectively and rejected. From 11'-16.5' face was not exposed and not sampled. |
| | 2 | 1967 | 0-8.5 | --- | Yes | 100 | 100 | 99.3 | 37.7 | 8.0 7.9* | 1 | --- | Gran. Borrow (Sand) | Test #2 was approximately 40' north of Test #1 in floor of pit. Material is a homogeneous sandy silt. It fails to meet requirements for Item 202 because of an excess passing the #100 and #270 sieves, but is acceptable for Item 105. |
| | 3 | 1967 | 11-16.5 | --- | Yes | 100 | 100 | 98.1 | 7.8 | 1.5 1.4* | 1 | --- | Sand | Test #3 was 25' west of Test #2 in lower face. Material is similar to, but coarser than that of Test #1. It is acceptable for Items 202 and 105. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 16

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|----------------------|--|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| 27 | 1A | 1967 | 1.5-6.5 | 0-1.5 | Yes | 90.4 | 73.6 | 61.1 | 7.9 | 6.0 3.7* | 1 | --- | Gran. Borrow (Grav.) | Owner: Carl Capella. Area consists of two small pits northwest of junction of Town Highway No. 14 with State Aid Highway No. 3. Test #1A was in southwest corner of face of westernmost pit. Material is 0-1.5' dirty gravel overburden; 1.5'-4.5' stony sand; 4.5'-6' medium clean sand; 6'-6.5' cobbly silt. Interval from 1.5'-6.5' failed to meet gradational requirements for Items 201 or 202 because the percentage passing the #4 screen fell between the allowable fractions. It is acceptable for Item 105. |
| | 1B | 1967 | 6.5-14.5 | --- | Yes | 71.9 | 53.9 | 43.5 | 8.0 | 4.0 | 1 | 14.1% | Gravel | Test #1B (below Test #1A) is 6.5'-8' cobbly gravel; 8'-10' medium clean sand; 10'-14.5' compact coarse gravel collectively meets requirements for Items 201 and 105. |
| | 2 | 1967 | 0.5-6 | --- | Yes | 79.8 | 63.6 | 46.8 | 8.0 | 3.0 | 1 | 9.8% | Gravel | Test #2 was in possible wooded extension 95' N23°W of Test #1. Material partially stripped is 0-0.5' loam; 0.5'-2' fine sand; 2'-3' gravelly sand; 3'-6' sandy coarse gravel that except for the loam, meets requirements for Items 201 and 105. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 17

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks | | |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|----------------------|---------|--|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | | | |
| | 3 | 1967 | 0-2.5 | --- | Yes | N | O | T | S | A | M | P | L | E | D | Test #3 was located in floor 50' N34°E of Test #1. Material is 0-2.5' coarse dirty gravel not necessarily in place. Water table was encountered at 2.5'. Location was not sampled. |
| | 4 | 1967 | 5.5-10.5 | 0-0.5 | Yes | 79.9 | 51.1 | 36.5 | 17.0 | 8.0 | 1 | 16.6% | Gran. Borrow (Grav.) | | Test #4 was in center of south face of easternmost pit. Material is 0-1.5' stony loam; 1.5'-5' loamy coarse gravel that was not tested; 5.5'-10.5' sandy coarse gravel that is unacceptable for Item 201 because of an excess passing the #100 and #270 sieves, but meets the requirements for Item 105. | |
| 28 | 1 | 1967 | 5-16 | 0-5 | Yes | 100 | 100 | 100 | 79.0 | 22.0 | 1 | --- | --- | | Owner: Lyons Estate. Area is a small pit in heavy woods 0.15 mile east of Town Highway No. 16 immediately south of Stratton Brook. Test #1 was in center of face. Material is a silty sand that is unacceptable for Items 202 and 105 because of an excess passing the #100 and #270 sieves. | |
| 29 | 1 | 1967 | 2-7.5 | 0-2 | Yes | 81.7 | 65.6 | 42.8 | 7.0 | 1.0 | 1½ | 8.8% | Gravel | | Owner: Arthur Watson. Area consists of a large pit southeast of Watson residence on Town Highway No. 16. Test #1 was in far southeast | |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 18

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|--------------|------------------|-----------------------|----------------------|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | | | | | | | | | | | | | | face. Material is 0-2' sod and loam; 2'-7.5' well-graded poorly bedded gravel that is acceptable for Items 201 and 105; 7.5'-9' saturated clay. |
| 30 | 1 | 1967 | 0-3 | --- | Yes | 87.4 | 69.7 | 54.4 | 13.0 | 5.0 | 1 | --- | Gran. Borrow (Grav.) | Owner: Everett LeBlanc. Area is the east end of a junk yard on Town Highway No. 17. Test #1 was in ridge of low relief that represents possible extension of junk yard excavation to northeast. Material is very compact dirty sand with many cobbles that barely fails to meet gradational requirements for Item 201 because of a slight excess passing the #270 sieve. It is acceptable for Item 105. |
| | 2 | 1967 | 0.5-4 | --- | Yes | 90.0 | 85.6 | 73.1 | 15.2 | 9.5 6.9* | 1 | --- | Gran. Borrow (Sand) | Test #2 was in floor at east end of junk yard. Material is 0-0.5' thin sod and loam; 0.5'-4' cobbles, dirty clay and sand lenses with stones that is acceptable for Item 105. |
| 31 | 1A | 1967 | 4.5-7.5 | 0-4.5 | Yes | 100 | 100 | 47.7 | 18.1 | 15.8 7.5* | 1 | --- | --- | Owner: Clifford Brimmer. Area consists of a small pit northeast of the entrance to junk yard at Map Identification No. 30. Test #1A was in upper northeast face. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 19

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|------------------|---|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | 1B | 1967 | 7.5-12 | --- | Yes | 100 | 100 | 100 | 46.0 | 14.0 | 1 | --- | --- | Material is 0-2' sod and cobbles; 2'-7.5' dirty cobblely sand; the lower three feet of which fails to meet requirements for Item 105. Test #1B was of 4.5 feet of sand and stones below Test #1A. It similarly is unacceptable for Item 105. |
| 32 | 1 | 1967 | 12-18.5 | 0-2 | Yes | 93.7 | 76.9 | 46.5 | 2.0 | 1.0 | 1 | 9.1% | Gravel | Owner: Everett LeBlanc. Area consists of a small pit south of the entrance to junk yard at Map Identification No. 30. Test #1 was in lower face of pit. Material is 0-2' sod and clay; 2'-12' not well-exposed and not sampled; 12'-18.5' clean fine gravel that is acceptable for Items 201 and 105. There are many cobbles on top of the ridge that runs west from this pit. |
| 33 | 1 | 1967 | 6-16 | 0-6 | Yes | 100 | 100 | 94.3 | 17.9 | 3.0 2.8* | 1 | --- | Sand | Owner: Harold Hewitt. Area is an extensive coalescence of sand pits west of Town Highway No. 17 at point about 0.35 mile from its intersection with State Aid Highway No. 3. Material is 0-6' silty loam; 6'-16' sand with pebbles and silt that meets requirements for Items 202 and 105. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 20

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|-----------------------------|------|------|------|-------------|------------------|-----------------------|---|---|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | | | | | | | | | | | | | This pit has a clay floor. | |
| 34 | 1A | 1967 | 6.5-10 | 0-6.5 | Yes | 93.9 | 73.8 | 58.8 | 3.0 | 1.0 0.6* | 1 | --- | Gran. Borrow (Grav.) Owner: Harold Hewitt. Area consists of a long ridge west of Town Highway No. 17 and north of the Hewitt residence. Test #1 was located in west face of a small pit on crest of the ridge near north property line. Test #1A material is 0-6.5' sod and loamy gravel overburden; 6.5'-10' pebbly sand with an occasional cobbles that is acceptable for Item 105 and that meets the gradational requirements for Item 201. However, there is insufficient proper size stone for the percent of wear test. | |
| | 1B | 1967 | 10-12.5 | --- | Yes | 100 | 99.2 | 97.6 | 28.3 | 3.0 2.9* | 1 | --- | Gran. Borrow (Sand) Test #1B material is 10'-12.5' - sand with calcareous and carbonaceous inclusions that fails to meet requirements for Item 202 because of an excess passing the #100 sieve. It is acceptable for Item 105. | |
| | 2 | 1967 | 3-10 | 0-3 | No | 100 | 100 | 100 | 85.0 | 15.0 | 1 | --- | --- | Test #2 was in terraced portion of ridge 40' east of Test #1. Material is 0-3' sod and loamy sand with some large pebbles (not sampled); 3'-10' fine sand that is rejected for Item 105. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 21

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks | | |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|---------------|------------------|-----------------------|----------------------|---|---|---|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | | | |
| | 3 | 1967 | 3.5-7 | 0-3.5 | No | 100 | 100 | 88.9 | 45.3 | 16.0 14.2* | 1 | --- | --- | Test #3 was 295' southwest of pit on crest of ridge. Material is 0-2' sod and calcareous loam; 2'-3.5' stony, loamy sand (not sampled); 3.5'-7' fine sand with cobbles and an occasional small boulder that is rejected for Item 105. | | |
| | 4 | 1967 | 4-8 | 0-4 | No | 86.2 | 73.7 | 51.3 | 8.0 | 2.5 | 1 | 13.0% | Gravel | Test #4 was 240' southwest of Test #3 on crest of ridge. Material is 0-4' sod and loamy sand overburden; 4'-8' stony sand or fine gravel with bedding planes that is acceptable for Items 201 and 105. | | |
| | 5 | 1967 | 3-10 | 0-3 | No | 100 | 100 | 100 | 96.0 | 45.0 | 1 | --- | --- | Test #5 was 330' southwest of Test #4 on crest of ridge close to its southwest terminal escarpment. Material is 0-0.5' sod; 0.5'-6' silt; 6'-10' fine white sand. Lower 7 feet of this interval is rejected as a source of Item 105. | | |
| | 6 | 1967 | 2-8.5 | 0-2 | No | 100 | 100 | 64.8 | 16.2 | 7.0 4.5* | 1½ | --- | Gran. Borrow (Grav.) | Test #6 was located 100' S40°E of Test #3 and 225' N65°E of Test #4. Material is 0-0.5' sod; 0.5'-2' loamy gravel (not sampled); 2'-8.5' stony sand that is acceptable for Item 105. | | |
| 35 | 1 | 1967 | 2.5-6 | 0-2.5 | No | N | O | T | S | A | M | P | L | E | D | Owner: Mark Rice. Area is comprised of a large |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 22

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks | | |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|------------------|--|---|---|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | | | |
| | | | | | | | | | | | | | | hillside pasture N60°E of radio tower and N20°E of Bennington Battle Monument. Test #1 was located at point 120' S60°W of large sugar maple near center of pasture. Material is 0-0.5' sod; 0.5'-2.5' cobbly loam; 2.5'-6' poorly bedded loamy sod and cobbles. Material was not tested. | | |
| 36 | 1 | 1967 | --- | 0-2 | No | N | O | T | S | A | M | P | L | E | D | Owner: Mark Rice. Area consists of a tilled field due east of radio tower on U. S. Route 7 and southeast of pasture at Map Identification No. 35. Test #1 was near center of field. Material consisting of 2 feet of loam overlying bedrock was not tested. |
| 37 | 1 | 1967 | 0.5-8 | --- | No | 73.1 | 54.1 | 42.8 | 18.0 | 11.3 | 1 | 13.3% | --- | | | Owner: Henry M. Tuttle, Co. Area comprises a long pit and an open hillside north of pit which are northwest of the Harold Hewitt farm on Town Highway No. 17. Test #1 was near top of hillside and 135' south of north property line fence. Place sampled has been partially stripped. Material is 0-0.5' loamy gravel; 0.5'-6' coarse dirty gravel; 6'-8' clean sand. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 23

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|---|---------|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| | | | | | | 2 | 1967 | 0-5 | --- | Yes | | | | |
| 3 | 1967 | --- | --- | Yes | 77.9 | 61.3 | 39.5 | 16.0 | 9.3 | 1 | 8.4% | Gran. Borrow (Grav.) | <p>Test #3 was in lower center face of longitudinal pit. An intermediate amount of sloughed in cobbly overburden overlies 8 feet of clean coarse gravel with mud lenses that is acceptable for Item 105, but fails to meet requirements for Item 201 because of an excess passing the #100 and #270 sieves.</p> | |
| 4 | 1967 | 1-9 | 0-1 | Yes | 76.0 | 47.6 | 33.1 | 9.0 | 6.0 | 1 | 8.0% | Gran. Borrow (Grav.) | <p>Test #4 was in floor of pit about 15' from face.</p> <p>Material is 0-1' cobbles and mud not in place and not sampled; 1'-9' cobbly clean</p> | |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 24

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks | | |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|------------------|---|---|---|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | | | |
| | | | | | | | | | | | | | | gravel that barely fails to meet requirements for Item 201 because of a slight excess passing the #270 sieve. It is acceptable for Item 105. | | |
| 38 | 1 | 1967 | 0.5-3 | 0-0.5 | No | N | O | T | S | A | M | P | L | E | D | Owner: Mark Rice. Area is a long field east of Mark Rice farm and north of Town Highway No. 17. Test #1 was in center of field S45°E of radio tower and 190' south of field fence. Material to a depth of 3 feet is stony clay and silt that was not tested. |
| | 2 | 1967 | 0.5-6 | 0-0.5 | No | N | O | T | S | A | M | P | L | E | D | Test #2 was at east end of field S65°E of radio tower and 32' south of field fence. Material to depth of 6 feet is clay and silt that was not tested. |
| 39 | 1 | 1967 | 2.5-8.5 | 0-2.5 | No | 51.9 | 34.9 | 19.4 | 2.0 | 1.0 | 1 | 4.3% | Gravel | Owner: Halvor Halvorsen. Area consists of field south of the Old Town Nursery and east of Town Highway No. 32. Test #1 was at southwest corner of field 60' east of Town Highway No. 32 and 35' north of tree line. Material is 0-2.5' sod and loam; 2.5'-8.5' cobbly sandy gravel that is acceptable for Items 201 and 105. | | |
| | 2 | 1967 | 3-8 | 0-3 | No | 35.4 | 23.9 | 15.5 | 3.0 | 1.0 | 3 | 5.0% | Gravel | Test #2 was at southeast corner of field 35' west of | | |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 25

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|---------------------|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | 3 | 1967 | 2-7.5 | 0-2 | No | 59.8 | 47.1 | 41.6 | 5.0 | 2.0 | 1½ | --- | Gravel | north-south wire fence. Material is 0-3' sod and loam; 3'-8' cobbly gravel with sand that is acceptable for Items 201 and 105. Test #3 was at northeast corner of field. |
| | 4 | 1967 | 2-7 | 0-2 | No | 62.1 | 44.7 | 33.0 | 8.0 | 3.0 | 2 | 4.8% | Gravel | Material is 0-2' sod and loam; 2'-6.5' cobbly gravel; 6.5'-7.5' coarse sand. Interval from 2'-7.5' meets gradational requirements for both Item 201 and 105. Test #4 was at northwest corner of field. |
| | 5 | 1967 | 5-8.5 | 0-4 | No | 100 | 100 | 61.6 | 8.0 | 3.0 1.8* | 3½ | --- | Gran. Borrow (Sand) | Material is 0-2' sod and loam; 2'-5' sandy gravel; 5'-7' cobbly gravel. Water table was encountered at 5 feet. Interval from 2'-7' meets requirements for Items 201 and 105. Test #5 was in center of field. Material is 0-4' sod and loam; 4'-5' silt (not tested); 5'-7' medium sand; 7'-8' cobbles; 8'-8.5' sand. Water table was encountered at 8.5'. Interval from 5'-8.5' is acceptable for Item 105, but is intermediate between Item 201 and Item 202 in classification. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 26

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks | | |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|--------------|------------------|-----------------------|---------------------|---|---|---|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | | | |
| 40 | 1 | 1967 | 1-6 | 0-1 | No | N | O | T | S | A | M | P | L | E | D | <p>Owner: Bennington County Industrial Commission.</p> <p>Area is a large sparsely wooded field east of State Aid Highway No. 3 and north of the Walloomsac River.</p> <p>Test #1 was at west edge of pasture east of baseball field about 40' N20°W of large elm tree.</p> <p>Material is 0-1' sod; 1'-6' mostly cobbles with loamy sand, gravel, and an occasional boulder was not tested.</p> |
| 41 | 1 | 1967 | 1-4 | 0-1 | No | N | O | T | S | A | M | P | L | E | D | <p>Owner: Bennington County Industrial Commission.</p> <p>Area is a long field east of the District Garage and southwest of Town Highway No. 30.</p> <p>Test #1 was at south end of field at point S70°E of the District Garage.</p> <p>Material is 0-1' sod; 1'-4' mostly cobbles with loamy sand and gravel and an occasional boulder. It was not tested. Fragment of a porcelain dish was found at edge of hole under sod.</p> |
| 42 | 1 | 1967 | 2-12.5 | 0-2 | Yes | 100 | 93.6 | 84.9 | 26.3 | 10.0 8.5* | 1 | --- | Gran. Borrow (Sand) | <p>Owner: Shields Estate.</p> <p>Area consists of an old pit, last worked in 1961, near bend in woods road about 500' north of large cattle barn.</p> | | |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 27

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|--|--|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | Test #1 was in center of face. Material is 0-2' loam and sod; 2-12.5' silty sand with stones that is acceptable for Item 105, but has an excess passing the #100 and #270 sieves failing it for Item 202. | |
| 43 | 1 | 1967 | 3-7.5 | 0-3 | No | 100 | 100 | 98.7 | 15.8 | 3.0* | 1 | --- | Sand | Owner: Clyde Burgess. Area is a cleared place on wooded terrace south of the Walloomsac River at point about 0.42 mile east of Town Highway No. 52 via woods road. Test #1 was at far west end of clearing. Material is 0-3' loamy overburden; 3'-7.5' stony clean sand that is acceptable for Items 202 and 105; 7.5'-? hard stony clay. |
| | 2 | 1967 | 0-3 | --- | No | N O T S A M P L E D | | | | | | | | Test #2 was in stripped area 135' due east of Test #1. Material is 0-3' stony sand that was not tested; 3'-? hard stony clay. |
| 44 | 1 | 1967 | 2-7.5 | 0-2 | Yes | 100 | 100 | 100 | 64.0 | 27.0 | 1 | --- | --- | Owner: Clyde Burgess. Area is a small pit on the Woodford Town Line southeast of Burgess Bros. office on Town Highway No. 53. Test #1 was in center of face that lies against town line. Material is 0-2' sod and |

*Percentage of Total Sample

TABLE I

FENNINGTON GRANULAR DATA SHEET NO. 28

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|----------------------|--|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| | | | | | | | | | | | | | | roots; 2'-13.5' sandy silt with clay inclusions that fails to meet requirements for Item 105. |
| 45 | 1A | 1967 | 10-18.5 | 0-10 | Yes | 100 | 82.7 | 78.4 | 4.7 | 1.0 0.8* | 1 | --- | Sand | Owner: William H. Morse. Area is the northeastern part of the "desert" which includes an extensive pit system Test #1 was located in the northwest face of the northeast lobe of pit system. Test #1A material was stripped and consists of 0-10' -cobbly gravel (inaccessible); 10'-18.5' cross-bedded pebbly sand that is acceptable for Items 202 and 105. |
| | 1B | 1967 | 18.5-21.5 | --- | Yes | 96.3 | 94.8 | 89.6 | 7.2 | 1.3 1.2* | 1 | --- | Sand | Test #1B material consists of 18.5'-21.5' pebbly sand that is acceptable for Items 202 and 105. |
| | 2 | 1967 | 2-5 | --- | Yes | 100 | 100 | 96.2 | 5.8 | 1.3 1.2* | 1 | --- | Sand | Test #2 was on floor 40' S40°E of Test #1. Material is 0-2' cobbly sand (possibly not in place); 2'-5' clean pebbly sand that is acceptable for Items 202 and 105. |
| | 3A | 1967 | 2-6 | 0-2 | Yes | 86.3 | 74.6 | 59.9 | 15.0 | 4.5 | 1 | 9.4% | Gran. Borrow (Grav.) | Test #3 was at far northwest end of cleared area due west of V.L. and P. Co. pole No. 8 and about 100' from woods. Test #3A material is 0-2' dirty, cobbly gravel (not sampled); 2'-4' clean sand; |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 29

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|---------------------|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | 3B | 1967 | 6-10 | --- | Yes | 88.1 | 88.1 | 83.3 | 24.2 | 9.0 7.5* | 1 | --- | Gran. Borrow (Sand) | 4'-6' - dirty gravel which intervals are acceptable for Item 105, but barely fail to meet requirements for Item 201 because of a slight excess passing the #270 sieve. Test #3B material is 6'-10' - sand with cobbles and clay blebs that is acceptable for Item 105, but is unacceptable for Item 202 because of excesses larger than the 1½" screen and smaller than the #100 and #270 sieves. |
| | 4 | 1967 | 3-8 | --- | Yes | 100 | 100 | 100 | 18.0 | 3. | 1 | --- | Sand | Test #4 was located 150' N15°E of Test #3 and 140' N35°W of V.L. and P. Co. pole No. 8. Material is 0-3' dirty gravel (not tested); 3'-8' clean pebbly sand that is acceptable for Items 202 and 105. |
| | 5 | 1967 | 1-8 | 0-1 | Yes | 93.5 | 93.5 | 92.4 | 2.8 | 1.0 0.9* | 1 | --- | Gran. Borrow (Sand) | Test #5 was located 90' N50°W of V.L. and P. Co. pole No. 9. Material is 0-1' cobbly sand (possibly not in place and not tested); 1'-4' clean fine sand; 4'-5' cobbles; 5'-8' clean fine sand with an occasional stone that is acceptable for Item 105, but barely fails to meet requirements for Item 202 because of a slight excess retained on the 1½" screen. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 30

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|---------------|------------------|-----------------------|---------------------|--|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| 46 | 1 | 1967 | 1-0.5 | 0-1 | Yes | 22.0 | 76.6 | 73.4 | 15.4 | 3.0 2.2* | 1 | --- | Sand | Owner: William H. Morse. Area is the northwestern part of the "desert", access to which is from the intersection of Harbour Road with Fillmore Street. Test #1 was in south face of level upon which crusher is situated, about 150' north of crusher. Material is 0-1' stony loam; 1'-2' stony fine sand that is acceptable for Items 202 and 105. |
| | 2 | 1967 | 0-5 | --- | Yes | 100 | 100 | 97.7 | 49.9 | 12.0 11.7* | 1 | --- | --- | Test #2 was in northwest face of gully northwest of Test #1. Material is rejected for Item 105 because of an excess passing the #100 and #270 sieves. |
| | 3 | 1967 | 0-6.5 | --- | Yes | 100 | 100 | 100 | 53.0 | 9.3 | 1 | --- | Gran. Borrow (Sand) | Test #3 was at point 220' S65°E of crusher. Material is 0-6.5' fine clean sand that is unacceptable for Item 202 because of an excess passing the #100 and #270 sieves. It meets requirements for Item 105. Material is 6.5'-7.5' clay; 7.5'-8.5' fine sand that was not tested. |
| 47 | 1A | 1967 | 4-11 | 0-4 | Yes | 94.3 | 87.9 | 72.0 | 2.0 | 1.0 | 1 1/2 | --- | Gran. Borrow (Sand) | Owner: William H. Morse. Area is the southern part of the "desert" which includes an extensive pit system. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 31

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|---------------------|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | 1B | 1967 | 11-16.5 | --- | Yes | 100 | 100 | 92.4 | 4.6 | 1.5 1.4* | 1 | --- | Sand | <p>Test #1A was in extreme south face of pit system. Material is 0-4' cobbly dirty gravel (not tested); 4'-11' stony coarse sand that fails to meet requirements for Item 202 because of a slight excess held by the 1½" screen, but is acceptable for Item 105.</p> <p>Test #1B was in middle face below Test #1A. Material is 11'-16.5' cross-bedded pebbly, stony, and fine clean sands that is acceptable for Items 202 and 105.</p> |
| | 1C | 1967 | 16.5-22 | --- | Yes | 100 | 100 | 93.8 | 14.1 | 3.0 2.8* | 1 | --- | Sand | <p>Test #1C was in lower face below Test #1B. Material is 16.5'-22' medium fine clean sand with stones that is acceptable for Items 202 and 105.</p> |
| | 2 | 1967 | 2-7 | 0-2 | Yes | 100 | 100 | 86.7 | 20.8 | 4.5 3.9* | 1 | --- | Gran. Borrow (Sand) | <p>Test #2 was in floor at point 45' N60°E of Test #1. Material is 0-2' cobbly sand (possibly not in place); 2'-7' fine clean sand with pebbles that is acceptable for Item 105, but fails to meet requirements for Item 202 because of an excess passing the #100 sieve.</p> |
| | 3 | 1967 | 1-8 | 0-1 | No | 100 | 91.1 | 85.4 | 13.7 | 2.3 2.0* | 1 | --- | Sand | <p>Test #3 was on cleared level above and about 250' northwest of Test #1. Material is 0-1' clean</p> |

*Percentage of Total Sample

TABLE I

BENTINGTON GRANULAR DATA SHEET NO. 32

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|----------------------|---|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | | | | | | | | | | | | | | stony sand (not tested); 1'-8' clean fine sand with an occasional pebble that is acceptable for Items 202 and 105. |
| 48 | 1 | 1967 | 0.5-3.5 | 0-0.5 | Yes | 68.1 | 42.8 | 30.1 | 5.0 | 1.0 | 1½ | 8.6% | Gravel | Owner: Roger Rowe. Area is a field with bulldozed strippings at northwest end that is about 500' east of the large pit complex in the "desert". Test #1 was at north edge of field towards west end next to bulldozed strippings. Material is partially stripped. It consists of 0-0.5' loamy gravel; 0.5'-3.5' dirty coarse gravel that is acceptable for Items 201 and 105. Water table was encountered at 3.5'. |
| | 2 | 1967 | 1-2.5 | 0-1 | No | N O T S A M P L E D | | | | | | | | Test #2 was at northeast corner of field. Material is 0-1' sod and loam; 1'-2.5' glacial till (boulders and clay) that was not sampled. |
| | 3 | 1967 | 0.5-6 | 0-0.5 | Yes | 58.5 | 47.8 | 32.3 | 12.0 | 7.5 | 1 | 8.0% | Gran. Borrow (Grav.) | Test #3 was next to and east of Test #1. Material was similar to that of Test #1 with estimated 20% cobbles. However, it was unacceptable for Item 201 because an excess passes the #270 sieve. Water table was encountered at 4' and had lowered |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 33

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|------------------|-----------------------|----------------------|---|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | 4 | 1967 | 1.5-5.5 | 0-1.5 | No | 71.3 | 62.2 | 41.8 | 5.0 | 1.8 | 2 | 20.4% | Gravel | 0.5' in the four weeks between tests. Test #4 was located 120' S45°W of Test #3 at base of grass hummock. Material is 0-1.5' gravel and manure; 1.5'-5.5' sandy gravel with cobbles that is acceptable for Items 201 and 105. Water table was encountered at 4'. |
| 49 | 1 | 1967 | 1-2.5 | 0-1 | No | 72.4 | 55.6 | 37.8 | 14.0 | 6.3 | 1 | --- | Gran. Borrow (Grav.) | Owner: Roger Rowe. Area is a field crossed by utility lines and Bennington Bypass survey stakes that is about 600' southeast of the large pit complex in the "desert". Test #1 was located 10' south of woods and 75' north-east of survey stake marked: Route 9 119+00. Material is 0-1' loam and sod; 1'-2.5' dirty medium to coarse gravel that is acceptable for Item 105, but fails to meet gradational requirements for Item 201 because a slight excess passes the #270 sieve. There was insufficient proper size stone for the percent of wear test. |
| | 2 | 1967 | 1-1.5 | 0-1 | No | N O T S A M P L E | | | | | | | | Test #2 was located 250' S15°W of Test #1. Material is 0-1' sod and |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 34

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks | | |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|-------------|------------------|-----------------------|----------------------|--|---|---|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | | | |
| | 3 | 1967 | 1-4.5 | 0-1 | No | 85.3 | 68.5 | 45.2 | 11.0 | 6.5 | 1 | 9.6% | Gran. Borrow (Grav.) | loam; loam being pebbly at base; clay at 1.5'. Material was not sampled. Test #3 was next to and east of Test #1. Material is 0-1' loam and sod; 1'-4.5' dirty gravel with 10% cobbles that is acceptable for Item 105, but fails to meet requirements for Item 201 because of an excess passing the #270 sieve. | | |
| | 4 | 1967 | 1-4 | 0-1 | No | 100 | 81.9 | 68.6 | 8.2 | 5.0 3.4* | 3½ | --- | Gran. Borrow (Sand) | Test #4 was located 260' S22°W of auger hole at station 118+00 Route 9 survey stake. Material is 0-1' sod; 1'-4' silty sand with an occasional cobble that is acceptable for Item 105, but has an insufficient fraction passing the #4 screen to meet requirements for Item 202; 4'-6' clay. | | |
| 5C | 1 | 1967 | 0.5-3 | 0-0.5 | No | N | O | T | S | A | M | P | L | E | D | Owner: Roger Rowe. Area is a field crossed by Bennington Bypass survey stakes that is about 300' south of the large pit complex in the "desert". Test #1 was on crest of high knoll near center of east edge of field. This test was 110' south of an auger hole 44' right of station 324+00. Material is 0-0.5' sod; 0.5'-3' clay and cobbles that was not sampled. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO.35

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Over-burden (Ft) | Exist-ing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|------------------|---------------|-----------------------------|------|------|------|-------------|------------------|-----------------------|---------------------|---|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| 51 | 1 | 1967 | 2-15.5 | 0-2 | Yes | 100 | 100 | 100 | 96.0 | 46.0 | 1 | --- | --- | Owner: Norman Greenberg. Area is a small pit east of Town Highway No. 51 at point 0.27 mile south of its junction with Town Highways No. 49 and No. 69. Test #1 was in center of face. Material is 0-2' sod and loam; 2'-15.5' sandy silt that has an excess passing the #100 and #270 sieves making it unacceptable for Item 105. |
| 52 | 1 | 1967 | 29-35 | 0-2 | Yes | 93.8 | 80.7 | 51.3 | 2.0 | 1.0 | 1 | 12.0% | Gravel | Owner: Henry Salem. Area consists of a high pit west of the fish hatchery on State Aid Highway No.1. Test #1 was in north face. Material is 0-2' sod; 2'-29' silt and sand with much sloughing that was inaccessible to the backhoe, hence not sampled; 29'-35' clean fine gravel that is acceptable for Items 201 and 105; 35'-41.5' cobbles; 41.5'-? sandy gravel (not sampled). |
| 53 | 1 | 1967 | 0.5-10.5 | 0-0.5 | Yes | 94.6 | 85.3 | 63.0 | 8.2 | 7.0 4.4* | 1 | --- | Gran. Borrow (Sand) | Owner: Henry Salem. Area comprises a large pit west of the intersection of Town Highway No. 56 with State Aid Highway No. 1. Test #1 was in face at southwest corner of upper level. Material is 0-0.5' loamy |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 36

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHTO T-21 | Abrasion AASHTO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|------|-------------------|------------------------|------------------|---|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| | 2A | 1967 | 0-9 | --- | Yes | 100 | 100 | 100 | 58.0 | 31.0 | 1 | --- | --- | gravel; 0.5'-10.5' dirty and clean gravel with sand lenses that is acceptable for Item 105, but is intermediate in size between sand and gravel, hence is not acceptable for either Item 201 or Item 202; 10.5'-15' not sampled. Test #2 was in center of face of upper level. |
| | 2B | 1967 | 9-18.5 | --- | Yes | 52.8 | 45.0 | 31.4 | 6.0 | 3.0 | 1 | 15.8% | Gravel | Material for Test #2A is 0-9' sandy silt that is unacceptable for Item 105. Material for Test #2B below Test #2A in face is 9'-18.5' - cobbly gravel that is acceptable for Items 201 and 105; 18.5'-24.5' not sampled. |
| | 3 | 1967 | 0-4.5 | --- | Yes | 57.5 | 42.0 | 27.2 | 23.0 | 11.3 | 1 | 16.4% | --- | Test #3 was dug in floor 70' S40°E of Test #2. Material consists of cross-bedded pebbly sands overlying coarse cobbly gravel. Ledge was encountered at 4.5' with strike of bedding oriented northeast-southwest along axis of test hole. |
| | 4 | 1959 | 4-20 | 0-4 | Yes | 71.3 | 64.7 | 41.2 | 4.0 | 2.0 | 1 | 11.3% | Gravel | Material is unacceptable because of an excess passing the #100 and #270 sieves. Test #4 was taken by laboratory personnel in 1959. It was in south side of pit, probably southeast of Tests #2 and #3 and east of Test #1. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 37

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHTO T-21 | Abrasion AASHTO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|-----------------------------|------|------|------|-------------|-------------------|------------------------|------------------|--|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| 54 | 1 | 1967 | 3-7.5 | 0-3 | No | 100 | 100 | 90.6 | 13.6 | 3.3 3.0* | 1 | --- | Sand | Material was acceptable for Item 201. |
| | 2A | 1967 | 1.5-3.5 | 0-1.5 | No | 100 | 100 | 93.5 | 11.2 | 4.0 3.7* | 1 1/2 | --- | Sand | Owner: F. N. Burnham. Area is large field south-east of Burnham farm and north of Town Highway No. 57. Test #1 was on high point where road bends north. Material is 0-3' sod and loam; 3'-7.5' fine sand with pebbles and silt pockets that is acceptable for Items 202 and 105. |
| | 2B | 1967 | 3.5-7.5 | --- | No | 100 | 100 | 98.4 | 2.0 | 0.5* | 1 | --- | Sand | Test #2 was at southeast corner of field on high point next to road. Material is 0-1.5' sod; 1.5'-3.5' dirty cobbly sand that is acceptable for Items 202 and 105 (see Test #2A); 3.5'-7.5' clean fine sand that is also acceptable for Items 202 and 105 (see Test #2B). |
| 55 | 1A | 1967 | 2-11 | 0-2 | Yes | 84.9 | 58.4 | 35.7 | 5.0 | 2.0 | 1 | 14.6% | Gravel | Owner: H. R. Oakes. Area consists of pit N80°W of Oakes farmhouse on State Aid Highway No. 1 and west end of field containing pit. Test #1A was at northwest end of face. Material is 0-2' sod and stones; 2'-11' dirty gravel with cobbles that is acceptable for Items 201 and 105; 11'-22.5' not |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 38

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|--------------------------|------|------|------|---------------|------------------|-----------------------|---------------------|--|
| | | | | | | 1½" | 5/8" | #4 | #100 | #270 | | | | |
| | 1B | 1967 | 11-21 | --- | Yes | 79.9 | 53.4 | 30.8 | 5.0 | 1.0 | 1 | 16.4% | Gravel | sampled. Test #1B represents lower face below Test #1A after owner had exposed same by development. |
| | 2 | 1967 | 4-8 | 0-4 | No | 79.0 | 75.6 | 66.4 | 5.0 | 1.8 | 1 | --- | Gran. Borrow (Sand) | Material is similar, dirty gravel that is acceptable for Items 201 and 105. Test #2 was at northwest corner of field 165' N35°W of Test #1. Material is 0-4' sod and sandy loam; 4'-8' dirty gravel with cobbles that is acceptable for Item 105, but is intermediate in size between sand and gravel, hence is not acceptable for either. |
| 56 | 1A | 1967 | 2.5-5 | 0-2.5 | Yes | 81.5 | 67.1 | 44.1 | 6.0 | 4.0 | 1 | 19.7% | Gravel | Owner: Sylvio Cassano. Area comprises a small pit southeast of Cassano farmhouse at end of Town Highway No. 56. Test #1 was in east face. Test #1A material is 0-2.5' cobbly overburden; 2.5'-5' cobbly gravel that is acceptable for Items 201 and 105.! |
| | 1B | 1967 | 5-8.5 | --- | Yes | 86.6 | 79.6 | 66.2 | 25.2 | 16.0 13.7* | 1 | --- | --- | Test #1B was of center face below Test #1A. Material is 5'-8.5' silty stony sand that is rejected for Item 105 because of an excess passing the #100 and #270 sieves. |

*Percentage of Total Sample

TABLE I

BENNINGTON GRANULAR DATA SHEET NO. 39

| Map Ident. No. | Field Test No. | Year Field Tested | Depth of Sample (Ft) | Overburden (Ft) | Existing Pit | Sieve Analysis % Passing | | | | | Color AASHO T-21 | Abrasion AASHO T-4-35 | Passes VHD Spec. | Remarks |
|----------------|----------------|-------------------|----------------------|-----------------|--------------|-----------------------------|------|------|------|------|------------------|-----------------------|----------------------|--|
| | | | | | | 1 1/2" | 5/8" | #4 | #100 | #270 | | | | |
| | 1C | 1967 | 8.5-15 | --- | Yes | 91.1 | 76.7 | 59.3 | 11.0 | 3.0 | 1 | --- | Gran. Borrow (Grav.) | <p>Test #1C was of lower face and was offset about 15' north of Test #1B.</p> <p>Material is 8.5'-15' gravel with silty sand interbeds that meets the gradational requirements for Item 201. Because there was insufficient proper size stone for wear test, material is only acceptable for Item 105.</p> |

*Percentage of Total Sample

TABLE I
Supplement

| BENNINGTON PROPERTY OWNERS - GRANULAR | Map Ident. No. |
|---|------------------------|
| Bennington College | 16, 18 |
| Bennington County Industrial Commission | 40, 41 |
| Biddle, Roger | 17 |
| Brimmer, Clifford | 31 |
| Burgess, Clyde | 43, 44 |
| Burnham, Frederick M., Jr. | 54 |
| Campbell, Duncan | 19 |
| Capella, Carl | 27 |
| Cassano, Sylvio | 56 |
| Corey, Perle | 14 |
| Elwell, George (Mrs.) | 5, 6 |
| Greenberg, Jerrald | 20 |
| Greenberg, Norman | 51 |
| Halvorsen, Halvor | 39 |
| Harbour, Alden | 25, 26 |
| Hewitt, Harold | 33, 34 |
| Hilliard, Harold | 15 |
| LeBlanc, Everett | 30, 32 |
| Lyons, N. (Estate) | 28 |
| McCullough, J. (Estate) | 9, 11, 12 |
| Morse, William H. | 21, 22, 23, 45, 46, 47 |
| Murphy, Mae (Mrs.) | 13 |
| North Bennington Village | 2 |
| Oakes, H. R. | 55 |
| Rice, Frank and Stephen | 24 |
| Rice, Mark | 35, 36, 38 |
| Rowe, Roger | 48, 49, 50 |
| Salem, Henry | 52, 53 |
| Scott, William R. | 10 |
| Shields (Estate) | 42 |
| Stanwood, Shirley (Miss) | 7, 8 |
| Turner, C. | 1 |
| Tuttle, Henry M. Co. | 37 |
| Vadakin, Clarence | 4 |
| Watson, Arthur | 29 |
| Welling, Fred | 3 |

TABLE II

BENNINGTON ROCK DATA SHEET NO. 1

| Map Ident. No. | Field Test No. | Year Field Tested | Rock Type | Exist- ing Quarry | Method of Sampling | Abrasion AASHO T-3 | Remarks |
|----------------|----------------|-------------------|-----------|-------------------|--------------------|--------------------|---|
| 1 | 1 | 1967 | Limestone | Yes | Chip | 3.3% | Owner: Fillmore Farms, Inc. Area is the Colgate Estate quarry east of Town Highway No. 46. Quarry wall facing north extends for about 500 feet east from Town Highway No. 46. It averages 20 feet in height. Test #1 was taken from west end of quarry to point 287 feet east. Material sampled is mainly dark blue-gray limestone, somewhat siliceous with a few calcite veinlets. It meets the requirements for Item 204, Sub-base of Crushed Rock. |
| | 2 | 1967 | Limestone | Yes | Chip | 10.2% | Test #2 was taken from east end of quarry wall for 213 feet west to east end of Test #1. Material sampled is similar to that of Test #1, darker in color and with no veinlets. It is apparently too soft to meet requirements for Item 204, Sub-base of Crushed Rock. This quarry appears to be developed in a basal section of the Glens Falls-Orwell Formations, undifferentiated. |

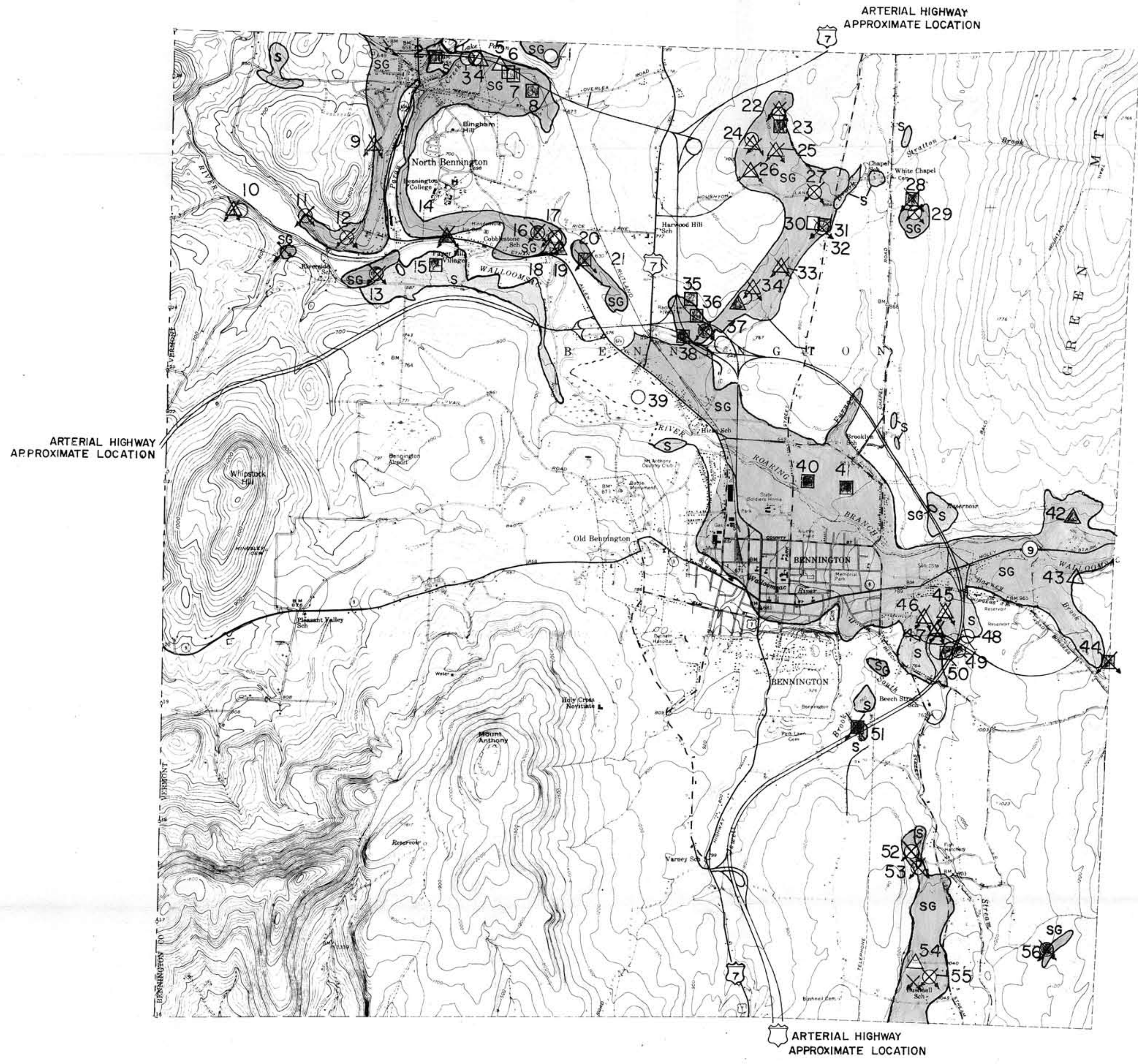
TABLE II
Supplement

BENNINGTON PROPERTY OWNERS - ROCK

Map Ident. No.

Fillmore Farms, Inc.

1



LEGEND

- GRAVEL, ACCEPTABLE FOR ITEM 201 (sub-base of gravel)
- ⊙ GRAVEL, DEPLETED OR NOT ACCEPTABLE FOR ITEM 201
- △ SAND, ACCEPTABLE FOR ITEM 202 (sub-base of sand)
- ▲ SAND, DEPLETED OR NOT ACCEPTABLE FOR ITEM 202
- GRANULAR BORROW, ITEM 105
- MATERIAL NOT ACCEPTABLE FOR ITEM 105
- ✕ EXISTING PIT
- ⊖ SAND & GRAVEL DEPOSIT
- ⊕ SAND DEPOSIT
- 3 IDENTIFICATION NUMBER (refer to data sheets)

BENNINGTON



CONTOUR INTERVAL 20 FEET

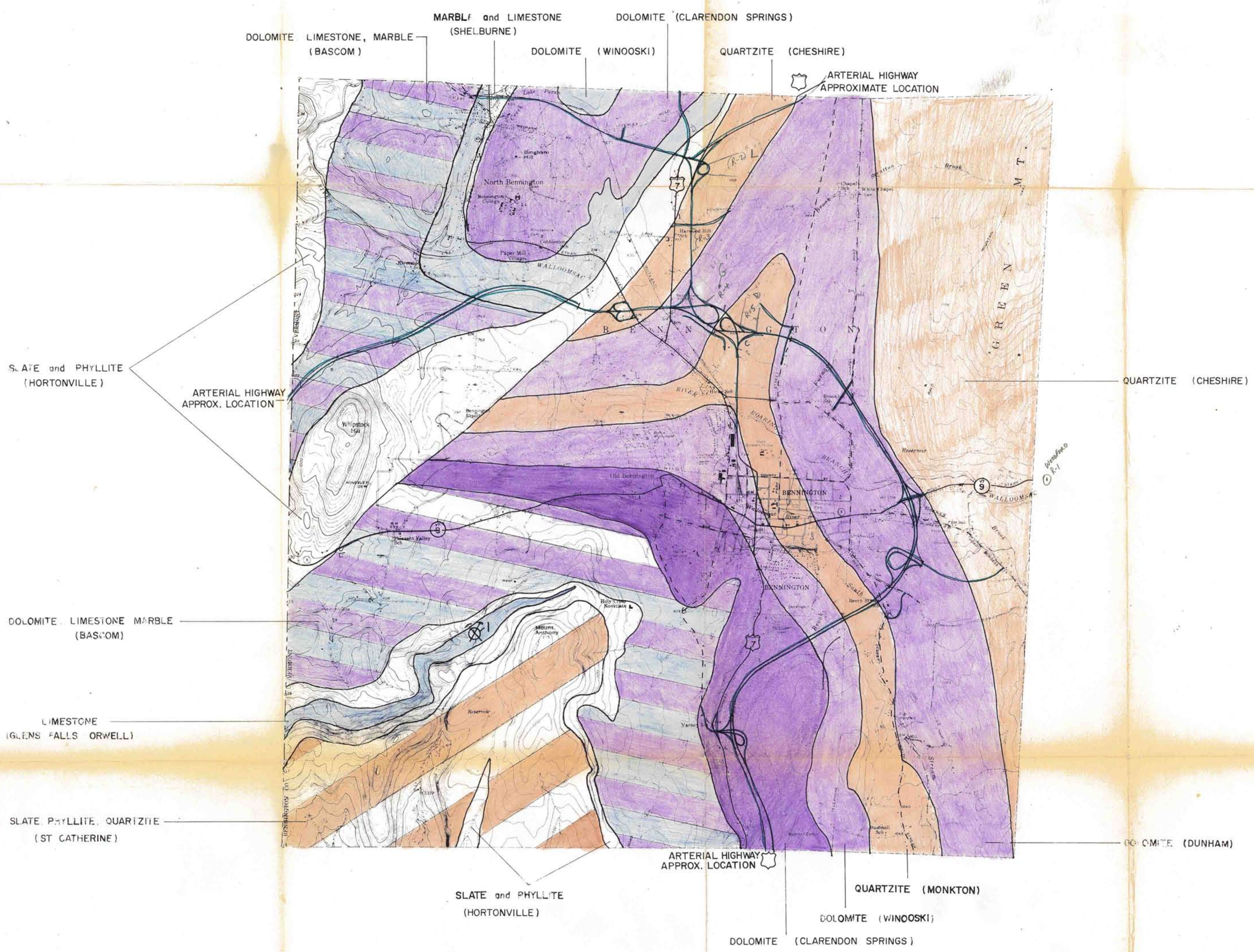
1968

GRANULAR
MATERIALS MAP
BY
VERMONT DEPARTMENT OF HIGHWAYS
IN COOPERATION WITH
U.S. BUREAU OF PUBLIC ROADS

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

REVISIONS

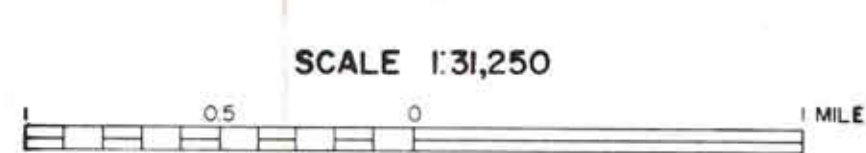
| | | | | |
|------|--|--|--|--|
| DATE | | | | |
| BY | | | | |



LEGEND

- ROCK, ACCEPTABLE FOR ITEM 204 (sub-base of crushed rock)
- ROCK, NOT ACCEPTABLE FOR ITEM 204
- 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)

BENNINGTON



SCALE 1:31,250
CONTOUR INTERVAL 20 FEET
1968

ROCK MATERIALS MAP
BY
VERMONT DEPARTMENT OF HIGHWAYS
IN COOPERATION WITH
U.S. BUREAU OF PUBLIC ROADS

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

REVISIONS

| | | | | | |
|------|--|--|--|--|--|
| DATE | | | | | |
| BY | | | | | |