

DEERFIELD TOWNSHIP ORDINANCE NO. 98

SPECIAL LAND USE REGULATIONS, PROCEDURES AND  
STANDARDS FOR MINING AND QUARRYING

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SPECIAL LAND USE REGULATIONS. PROCEDURES AND STANDARDS FOR MINING AND QUARRYING

98-1. Statement Of Purpose: Definitions: Necessity for Permit

a. Statement of Purpose.

This Ordinance is intended to regulate the use of land for all types of open, pit strip, tunnel and/or shaft mining, including the mining of sand, gravel, peat, soil, metals, the mining of bituminous coal and lignite, and the mining and quarrying of other minerals. The extraction of oil and gas is not regulated by this section. This section provides procedures for the evaluation of applications for the issuance of special use permits to establish such mining and quarrying uses. Special use regulations and special use application evaluation procedures are needed because mining and quarrying may pose significant land use problems, including environmentally damaging changes in topography, impairment of the load bearing capacity of adjacent land, safety hazards due to heavy truck traffic on roads not designed for such traffic, levels of noise from mining and related operations, threats to air quality from dust and other emissions, threats to water quality from erosion and chemical emissions, threats to water levels, aesthetic problems, zoning and license enforcement problems, land use compatibility problems, loss of natural resources, threat to desirable land use patterns and potentials, residential blight, and/or attractive nuisance hazards.

b. Definitions

As used in this Ordinance, the following terms shall have the following meanings:

(1) "Township" means Deerfield Township Livingston County, Michigan

(2) "Township Board" means the duly elected qualified and serving members of the Township Board of Deerfield Township, Livingston Michigan;

(3) "Township Clerk". means the duly elected, qualified and serving Clerk of Deerfield Township, Livingston County, Michigan;

(4) "Township Engineer" means the duly appointed, qualified and serving Engineer for Deerfield Township, Livingston County, Michigan;

(5) "Township Planning Commission" means the duly appointed, qualified and serving members of the Planning Commission of Deerfield Township, Livingston County, Michigan;

(6) "Township Supervisor" means the duly elected, qualified and serving Supervisor of Deerfield Township, Livingston County, Michigan;

(7) "Zoning Inspector" means the duly appointed, qualified and serving Zoning Inspector or Zoning Administrator of Deerfield Township, Livingston County, Michigan.

c. Necessity for Permit.

No mining or quarrying, as defined by this Ordinance, shall be permitted unless the Township shall first have issued a special land use permit in accordance with the provisions of this Ordinance, or unless the Township shall first have issued a non-conforming use permit for such mining or quarrying pursuant to the



intent of these procedures and standards to ensure that mining and quarrying shall occur in places and ways which will be consistent with public health, safety and welfare and to ensure that lands subject to mining operations shall continuously be reclaimed and rendered fully suitable for a use approved pursuant to issuance of the applicable special land use permit.

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Use Limitations

a. Uses Regulated by this Ordinance

This Ordinance regulates all types of open, pit, strip and tunnel mining, including the mining of metals, the mining of bituminous coal and lignite, and the mining and quarrying of other minerals and/or earth resources, including but not limited to the following:

dimension stone mining crushed and broken stone sand and gravel clay, ceramic and refractory minerals chemical and fertilizer minerals, including:

barite  
fluorspar  
potash, soda and borate  
phosphate rock  
rock salt  
sulfur  
gypsum  
talc, soapstone and pyrophyllite  
miscellaneous

nonmetallic minerals, including:

agate  
amethyst  
asphalt  
bituminous limestone  
bituminous sandstone  
burrstone  
calcite

catlinite  
corundum cryolite  
diamond  
diatomaceous earth  
diatomite  
emery  
fill dirt  
garnet  
gemstones  
gilsonite  
grahamite  
graphite  
greensand  
grinding peat  
grindstone quarrying  
jade  
meerschäum  
mica  
millstone  
muscovite  
natural abrasive  
oilstone oxokerit  
peat humus  
perlite  
phlogopite  
pipestone  
pozzolana  
precious stones  
pulpstone  
pumice  
pumicite  
quartz  
reed peat  
rubbing stone  
ruby  
sapphire  
scoria  
screening peat  
scythestone  
sedge peat  
semiprecious stones  
sharpening stone  
shredding peat  
topsoil  
tripoli  
turquoise  
vermiculite  
volcanic ash  
whetstone  
wurtzilite

Other nonmetallic minerals with  
marketable value

b. Mining And Quarrying Defined And Provision For  
The Separate Regulation Of Those Types Of Earth  
Resource Removal Which Do Not Constitute Mining  
And Quarrying.

For the purpose of this Ordinance "mining", "excavation" and "quarrying" are defined as the removal from a parcel of land of any earth resource defined in Subsection 2.a. However, "mining", "excavation" and "quarrying" shall not include the removal from a single parcel of land during any calendar year of: (1) less than 1,000 cubic yards of material when such removal is NOT attendant to development in accordance with a subdivision preliminary approval, or (2) less than 10,000 cubic yards of material when such removal is attendant to development in accordance with a subdivision preliminary approval. All removal which is not regulated as mining and quarrying shall be subject to the site plan review provisions of the applicable Township ordinance(s), in the case of removal attendant to development subject to site plan review, and to the soil erosion and sedimentation control regulations of Livingston County, in the case of all removal.

98.3 Mining and Quarrying Special Land Use Applications

a. An application for a special land use permit for mining and quarrying shall be submitted jointly on behalf of, and signed by, each person or entity having any interest in the land on which the use is to be located, including, but not limited to, all Applicants and Lienholders (as those terms are defined in Subsection 3.b.). The application shall contain the sworn certificate of each such person or entity certifying as to the accuracy and completeness of each statement pertaining to it

contained therein. The application shall not be eligible for consideration until it is in satisfactory form, has been duly executed, and has been submitted to the Township Board, accompanied by all necessary fees as provided in this ordinance.

b. The application shall be made on forms provided by the Township Board and shall be accompanied by such documentation as is required to determine compliance with this ordinance, but not less than the following:

(1) The name and address of each person or entity having any interest in the land (whether as owner, tenant, optionee, vendor, vendee, or otherwise, vested or contingent, present or future, direct or indirect, but excluding any Lienholder as defined in Subsection 3.b(7)) on which the use is to be located (all such persons and entities are hereinafter collectively referred to as the "Principals"), together with a description of each Principal's interest in the land.

(2) The name and address of each person or entity having any interest which confers, or will confer, any right of access, development, operation or other right in the land on which the use is to be located, whether vested or contingent, and should include, but shall not be limited to, a person or entity that is a party to a lease, development agreement, operating agreement, or any other agreement which pertains to a mining or quarrying operation on the land on which the use is to be located, the removal of resources from the site, or contracting with others for any such activity (all such persons and entities are hereinafter collectively referred

to as the "Operators"), together with a description of each Operator's interest.

- (3) The name and address of each other person or entity having any interest in the land or in the development thereof or any operation thereon, together with a description of each of their respective interests in the land on which the use is to be located.
- (4) All Principals, all Operators, and every other person or entity having any interest in the land or in the development or operation hereof, but not including any Lienholder as defined in Subsection 3.b.(7), shall be collectively referred to herein as the "Applicants".
- (5) Specification of the location, size and legal description of the land for which special land use approval is sought, together with any and all adjoining land in which any of the Applicants and/or any person or entity affiliated with any of the Applicants has any interest (whether as owner, tenant, optionee, vendor, vendee, Lienholder or otherwise; vested or contingent, present or future, direct or indirect).
- (6) A search of the record title to the lands described in subparagraph (5) prepared by a reputable title company satisfactory to the Township certified as of a date not more than thirty (30) days prior to the date of application and disclosing all interests in the land on which the use is to be located, including but not limited to the interests of each Applicant and each lien or security interest with respect to any portion of such land.

(7) A statement in writing from each holder of a lien or other security interest in any part of the land on which the use is to be located (all such persons and entities being hereinafter collectively referred to as "Lienholders"), acknowledging each Lienholder's willingness to subordinate interest in the land to interest of the Township in exercise of its rights under ordinance and any special special use permit with respect to the restoration of the land accordance with any Operations Restoration Plan that may be entered into with respect to said land.

(8) The name, address and telephone number of one person, firm or corporation designated by each Applicant and each Lienholder as agent for all for the purpose of receiving all notices, correspondence and communications in connection with this ordinance and any special land use permit granted pursuant to this Ordinance.

(9) The name and address of the banking or savings and loan entity which is to issue the irrevocable letter of credit or other surety to be posted pursuant to Subsection 9, if applicable.

(10) Sworn statements that none of the Applicants has defaulted on any bond posted to ensure performance in connection with any mining and/or construction activity, or if any of the Applicants has defaulted on any such bond, a brief description of the circumstances surrounding the default, including the name of the surety, date of default and any remedial action which was taken.



- (11) The name of each Applicant's carrier for public liability and property damage insurance and policy limits thereof, together with current certificates of insurance for coverages required under this ordinance.
- (12) Vertical aerial photographs, enlarged to a scale of one (1) inch equals two hundred (200) feet, from original photographs at a negative scale no smaller than one (1) inch equals one thousand (1,000) feet). The area covered by the vertical aerial photographs shall include: all land subject to the application; all contiguous land which is proposed to be used or has been used by any of the Applicants for any extraction, treatment or storage; all roads which can provide access to any land involved in the proposed operation; all roads other than state trunklines which may be used to haul mined material; and all lands within one mile of each of the aforementioned areas. Each such area or feature shall be delineated on the aerial. All aerial photographs shall be taken not more than one year prior to the date of the application of which they are a part.
- (13) Twenty (20) copies of an identification and topographic survey, prepared by an engineer or surveyor licensed by the State of Michigan to prepare such a survey, drawn to a scale of one (1) inch equals two hundred (200) feet with topographic contours drawn at two foot intervals on U.S.G.S. datum. This survey shall include the boundary of the entire tract by courses and distances, all boundaries of the areas subject to the application, and the means of vehicular access to the proposed operation.



(14) Twenty (20) copies of an isopach survey or other comparable geologic data indicating the location of deposits to be mined and the basic data and collection methods upon which such survey is based. Elevations shall be based on U.S.G.S. datum.

(15) An estimate of the quantity of material available for excavation on the site and the extent of resources on undeveloped land within one mile of the site.

(16) A report by a qualified independent soil scientist, soils engineer, hydrologist, hydrogeologist or geologist regarding the surface water, the level of the water table and the size and location of existing and new water bodies, streams, and drains on the site and within one mile of the site. The report shall include an opinion as to each and every effect on the water table and private wells of property within the reasonably anticipated area of impact during and subsequent to the operation. The report shall also include an opinion whether the exposure of subterranean waters and/or the impoundment of surface waters, where permitted, will establish a stable water level at the level or levels proposed as part of the operation, and that the same will not interfere with existing subterranean water or cause any harm or impairment to the general public. The report shall include a ground and surface water quality analysis based on samples taken not more than one year prior to the date of the application of which the report is a part. The analysis shall be completed in accordance with generally accepted engineering standards. The report shall provide base line water

quality data to be used in determining compliance with the requirements of this ordinance.

(17) A detailed Operations and Restoration Plan for the extraction of the natural resource deposits and restoration of the site. The plan shall:

- (a) Set forth in detail the arrangement and nature of all operations, including the quantity of each type of material to be removed and the machinery, equipment and methods to be used in the operation.
- (b) Set forth a detailed explanation as to routing of commercial vehicles and their size, weight and frequency of trips. If different routes will be used at different stages of the operation, a timetable for routing shall be included. The Applicant shall submit these proposed routings to the Township, affected adjoining townships, the County Road Commission, and the Michigan Department of Transportation for review of the physical and design capabilities of these routes to accommodate the potential traffic, including turning movements to and from the site at all points of egress and ingress. A letter from each jurisdiction indicating their comments shall be included as part of this application.
- (c) Set forth in detail the types and amounts of explosives proposed to be used, and the areas to be blasted.

- (d) Set forth in detail the amount and source of water to be utilized in processing, and the anticipated means and location of dispersals of such water following use.
- (e) Set forth in detail those features of the arrangement and nature of operations which will ensure that the operations have minimum negative impact on adjacent areas and on areas affected by the routing of trucks and other commercial vehicles.
- (f) Set forth in detail the procedures to be employed to protect groundwater, water courses, water bodies, streams, drains, and wetlands from contamination and erosion directly or indirectly caused by extraction and restoration activities. Procedures should include the use of monitoring wells and the periodic sampling of water courses and water bodies and the termination of mining activities if any of the periodic samplings indicate damage from contamination or erosion. Monitoring wells may be omitted if the Township Board finds, based on specific facts, that they are not needed to ensure protection of water quality.
- (g) Set forth in detail the procedures to protect groundwater levels and the direction and flow rates of subsurface aquifers. Methods for the disposition by controlled flow or controlled drainage of any excess water into existing drains or water courses shall be specified.

Methods shall be such that the facilities of such drain and/or water course shall not be unduly burdened by the introduction of the additional drainage. Procedures should include the use of monitoring wells at the perimeter of the property and the termination of mining activities if monitoring wells indicate that impacts on groundwater could result in significant draw down of existing wells or the region's water table. Monitoring wells may be omitted if the Township Board finds, based on specific facts, that they are not needed to ensure protection of water quantity and flow.

- (h) Set forth in detail a timetable for each stage of the operation and a plan for progressive restoration simultaneous with the operation: (after the initial start-up period). The restoration plan shall specify:
- 1) The use or uses to which each restored area will be put.
  - 2) The dates by which staged areas will be restored pursuant to 98-12, b(1).
  - 3) The restoration topography drawn as contours at an interval of two (2) feet on U.S.G.S. datum.
  - 4) The location of water bodies and other major physical features.

5) The location of areas to be partitioned or subdivided, and the proposed layout of such areas.

6) The methods and materials proposed for reclamation including topsoiling, mulching, and the amount and type of plantings.

(i) Provide for operations and restoration in conformance with the provisions of Subsections 12 and 13.

c. The application for approval of a mining special land use may be accompanied by an application for a change in the zoning designation of the subject property, provided all applicable requirements for a zone change are met.

d. The Applicants shall be responsible for payment of all application fees, including but not limited to all costs incurred by the township in reviewing and evaluating the application, as herein provided. The application shall be accompanied by a deposit against the application fee, which fee shall be in an amount sufficient to cover all costs of the Township associated with review of the application. Such costs may include, but shall not be limited to, costs of providing required public notice and thorough independent, professional technical reviews of all issues pertinent to consideration of the application. Technical reviews shall address such issues as land use impacts, land value impacts, traffic flow and traffic safety impacts, water quality impacts, other natural resource impacts, compliance enforcement problems, land restoration costs and other technical issues. Independent technical reviews shall be prepared by appropriately qualified independent

professionals to a level of detail appropriate to the proposed mining operation. The Township Board shall establish by resolution the amount of the application fee deposit for each application, on a case-by-case basis.

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Mining And Quarrying Special Land Use Application Procedures.

- a. The application for approval for a mining and quarrying special land use, and the related zone change application, if any, shall be referred by the Township Board to the Planning Commission at its next regularly scheduled meeting which takes place seven (7) calendar days or more after the initial submission of the application(s) to the Township Board.
- b. The Planning Commission shall review and communicate to the Township Board its recommendation on the zone change application, if any, in accordance with procedures prescribed by applicable statute.
- c. The Planning Commission shall hold one or more public hearings to hear any person wishing to present facts, information and/or opinions pertaining to the application. Notice of such public hearings shall be given as follows:
  - (1) The Planning Commission shall publish a notice of each such hearing in a newspaper of general circulation in the Township and shall send a notice of each such hearing by mail or personal delivery to:
    - (a) all owners of property for which approval is being considered;
    - (b) all persons to whom are assessed real property within 500 feet of the boundary of the subject property;

- (c) occupants of all structures within 500 feet of the subject property;
  - (d) all persons to whom is assessed real property within 300 feet of any road segment, other than a state trunkline highway which comprises a portion of the route identified in the application as that which will be utilized by haul and other commercial vehicles;
  - (e) occupants of all structures within 1500 feet of any road segment, other than a state trunkline highway, which comprises a portion of the route identified in the application as that which will be utilized by haul and other commercial vehicles.
- (2) The notice shall be given not less than five (5) and not more than fifteen (15) days before the public hearing to which it shall apply.
  - (3) If the name of the occupant is not known, the term "occupant" may be used in making notification. Notification shall be given to the occupant of each dwelling unit or spatial area which is owned or leased by different individuals, partnerships, businesses or organizations from other dwelling units or spatial areas.
  - (4) The notice shall:
    - (a) Describe the nature of the special land-use request.
    - (b) Indicate the property which is the subject of the special land-use request and all road segments within the Township



which will be used by haul vehicles.

- (c) State when and where the public hearing on the special land-use request will be held.
  - (d) Indicate when and where written comments will be received concerning the request.
- d. The number of public hearings scheduled shall be sufficient to permit the Planning Commission to hear public comment pertinent to the application. At least one such public hearing shall be held after the Planning Commission has had an opportunity to review and consider both the application and the pertinent technical reviews prepared pursuant to Subsection 4.e.
- e. At the expense of the Applicants, the Planning Commission shall obtain technical reviews pertinent to the application. Technical reviews shall address such issues as land use impacts, land value impacts, traffic flow and traffic safety impacts, water quality impacts, other natural resource impacts, compliance enforcement problems, land restoration costs and other technical issues. Technical reviews shall be prepared by appropriate qualified professionals to a level of detail appropriate to the potential scope of the proposed mining operation. The level of detail appropriate to the potential scope of the proposed mining operation shall be determined by the Planning Commission, which shall specify the technical reviews to be prepared, the professionals to be responsible for preparation, and the extent, if any, to which initially prepared technical reviews should be supplemented by expanding their content and/or by preparing additional technical reviews to cover topics not previously covered. As a minimum, the Planning

Commission shall obtain a professional planner's written technical review which addresses in detail the standards set forth in Subsection 6 and facts pertinent thereto. Such a technical review shall evaluate compliance with the applicable standards and shall indicate if additional technical reviews may be necessary to determine compliance. All technical reviews, including the minimum professional planners review, shall be obtained at the Applicants' expense as provided in Subsection 3.d. The professionals responsible for preparation of technical reviews shall not be employees of any of the Applicants or have ongoing professional or business association with any of the Applicants.

- f. The Planning Commission shall make a recommendation regarding the special land use application. It shall recommend to the Township Board, approval, approval with conditions, or disapproval. The Planning Commission's recommendation shall be based on all available factual materials and public hearing comments pertinent to the requirements of this Ordinance in general, and pertinent to the requirements and standards of Subsections 3, 6, 12 and 13 in particular. As part of its recommendation, the Planning Commission shall set forth in detail the reasons and facts upon which the recommendation is based. The views of any members of the Planning Commission who disagree with the recommendation or who otherwise wish to record their comments as part of the recommendation shall also be included.
- g. The application and the zone change application, if any, together with the Planning Commission's recommendations thereon, reports and other submissions prepared in connection with technical reviews and all other factual material reviewed by the Planning Commission in the course of its deliberations, a

summary of the comments from the Planning Commission public hearings, and the minutes of pertinent Planning Commission discussions and deliberations (including expressions of divergent opinions), shall be forwarded to the Township Board for review and consideration. Following receipt of the application, the Planning Commission recommendations and related material, the Township Board shall hold one or more public hearings to hear any person wishing to present facts, information and/or opinions pertaining to the application. Notice of such public hearings shall be given as provided in Subsection 4.c. The number of public hearings scheduled shall be sufficient to permit the Township Board to hear public comment pertinent to the application. At least one such public hearing shall be held after the Township Board has had an opportunity to review and consider both the application and the material submitted by the Planning Commission pursuant to Subsection 4.g.

- h. The Township Board shall review and consider all technical reviews and all other factual material reviewed by the Planning Commission, all public hearing comments, and such additional information as it deems pertinent, including additional technical information reviews of the type set forth in subsection 98-4, e. The application shall be presented to the Township Board by the Applicant and/or its representatives. Pertinent technical reviews shall be presented by their authors. Pursuant to its deliberations, the Township Board may question those presenting pertinent information. In the course of its deliberations, the Township Board may remand the entire application or specific questions pertinent to the application to the Township Planning Commission for further consideration and recommendation. The Board shall approve, approve with conditions, or disapprove the application. Such decision shall be based solely on the criteria set forth in this Ordinance.

i. If the application is approved or approved with conditions, a special land use permit will be issued to conduct operations. The permit shall incorporate by reference, and operations shall be conducted in conformance with: (i) the Operations and Restoration Plan for the permit as approved by the Township Board, (ii) any conditions attached thereto by the Township Board, and (iii) the terms and conditions of any other applicable laws, the ordinances of the Township, and any other applicable regulations. The permit shall not be valid until it has been signed by the Township Supervisor and the Township Clerk. The Supervisor and the Clerk shall not sign the permit until they have determined that: (i) all application review costs have been paid, (ii) all required sureties have been deposited, (iii) all permit signatures required pursuant to Subsections 10.g and h have been obtained, and (iv) all other conditions which are required to be fulfilled prior to commencement of operations have been fulfilled. The Operations and Restoration Plan and any conditions shall become an integral part of this ordinance and all mining activities and subsequent use of the land shall conform thereto. No change in the terms of the Operations and Restorations Plan or the conditions attached by the Township Board thereto or to the persons named as Applicants shall be made except by the issuance of an amended special land use permit pursuant to the same procedures and standards set forth herein for issuance of the initial special land use permit.

j. No application for a special land use permit which has been denied by the Township Board shall be resubmitted until the expiration of one (1) year from the date of such denial, except on grounds of newly discovered evidence or proof of changed conditions, sufficient to justify reconsideration by the

Township Board. Each reapplication will be treated as a new application.

98.5 Time Limit And Renewal Of Mining And Quarrying Special Land Use Permit.

- a. Mining and quarrying special land use permits shall be issued for a period which is not less than twelve (12) months and which is not longer than sixty (60) months.
- b. Mining and quarrying special land use permits may be renewable upon submission and approval of an application for renewal. In order for an application for renewal to be approved, it shall: (1) meet all the requirements set forth for initial applications, and (2) contain satisfactory evidence of compliance with the requirements of this ordinance and any conditions of approval applicable to the permit for which renewal is sought. Evidence of compliance shall be obtained pursuant to the provisions of Subsection 7, with all costs for determining compliance being paid by those persons, firms and/or corporations designated to bear such costs pursuant to Subsection 7.
- c. Applications for renewal of mining and quarrying special land use permits shall be submitted not more than six (6) months prior to expiration of the permit for which renewal is sought.

98.6 Township Board Review And Approval Of Mining Special Land Uses

a. General Standards For Approval.

The Township Board shall approve the establishment or enlargement of a mining activity as a special land use only after it has determined, based on the facts submitted by the Applicants or otherwise available, that no areas directly or indirectly affected by the proposed mining and related activities will suffer any very serious

consequences as a result of the proposed land use. The seriousness of consequences shall also be weighed in relationship to the scarcity of and the public need for the material to be mined. In making such a determination, the Township Board shall make specific, separate findings as to each of the following aspects of the proposed mining operation:

#### OFF-SITE IMPACTS

- (1) There will be no very serious impairment to the safety of motorists as a result of increased vehicular congestion, roadway deterioration, debris thrown from trucks, and/or the mixture of slower truck with faster automobile traffic, or any other cause. In making such a finding, consideration shall be given to existing and future traffic volumes, thoroughfare geometrics, topographic and other pertinent conditions.
- (2) Existing roadways are adequately improved to carry traffic which will result, or there are funds available to make necessary improvements.
- (3) There will be no very serious impairment to the safety of school children riding school buses or walking to school as a result of increased vehicular congestion, roadway deterioration, debris thrown from trucks, and/or the mixture of slower truck with faster automobile traffic, or any other cause. In making such a finding, consideration shall be given to existing and future populations of school children.
- (4) There will be no very serious impairment to the quiet enjoyment of properties due to noise from truck traffic generated by the



mining site. In making such a finding, consideration shall be given to the nature of existing and future development.

- (5) There will be no very serious impairment to the quiet enjoyment of properties due to dust and exhaust from truck traffic generated by the mining site. In making such a finding, consideration shall be given to the nature of existing and future development.
- (6) There will be no very serious impairment to the general level of air quality due to dust, exhaust or other emissions from off-site hauling of mined materials. In making such a finding, consideration shall be given to the equipment and methods used to minimize such impacts.

#### ON-SITE IMPACTS

- (7) There will be no very serious impairment to the quiet enjoyment of properties due to noise from the mining or processing of materials on the site. In making such a finding, consideration shall be given to the nature of existing and future development.
- (8) There will be no very serious impairment to the quiet enjoyment of properties due to dust, exhaust or other emissions from on-site extraction, moving or processing of mined materials. In making such a finding, consideration shall be given to the nature of existing and future development.
- (9) There will be no contamination of groundwater from the mining operations.
- (10) There will be no very serious draw-down of groundwater levels or



alteration of the direction or flow rate of aquifers, and there will be no serious negative impact in terms of the diversion or alteration of the direction or flow of surface water runoff on site or in the surrounding area.

- (11) There will be no very serious negative aesthetic impact from open pits, processing structures, stockpiles of mined material, re-use piles or other similar facilities.
- (12) Potential attractive nuisance or other dangers associated with mining operations will be minimized by appropriate safety precautions.
- (13) There will be no very serious impairment to the general level of air quality due to dust, exhaust or other emissions from on-site extraction, moving or processing of mined materials.

MID AND LONG RANGE PLANNING  
CONSIDERATIONS:

- (14) The use of land after reclamation will be compatible with the existing and planned development of surrounding areas.
- (15) There will be no very serious loss of agricultural land and/or alternative development opportunities.
- (16) Other lands within the Township will not be blighted by the mining operations or associated activities.

ASSURANCES OF COMPLIANCE

- (17) The Applicants have provided adequate financial assurances that reclamation will occur as approved and on schedule.

(18) The Applicants have provided adequate financial resources to pay all costs of Township monitoring of compliance.

(19) The Applicants have provided adequate financial and contractual assurances that hauling will comply with approved time schedules and routes.

(20) The Applicants have provided all other assurances necessary for the Township to determine that there will be compliance with all requirements of this Ordinance.

SCARCITY AND NEED FOR MATERIAL TO BE MINED

(21) Available supplies of the material to be mined from existing sources other than the proposed mining site and from unidentified, but reasonably anticipated other sites, do not substantially exceed reasonably foreseeable public needs. In evaluating available supplies and public needs, consideration shall be given to all supplies and all needs, whether generated inside or outside of the Township, which are likely to affect the market area which might be served by the site for which special use approval is sought.

b. Size, Duration and Locational Relationships.

In determining whether or not the general standards set forth above are met, the Township Board shall consider the following factors in relation to each other: (1) the size of the proposed operation, (2) the location of the proposed operation (including haul routes) in relation to residential land and state trunk line highways, and (3) the anticipated duration of the proposed operation. In general, the

Township Board shall not approve 50 acre or larger operations of anticipated five (5) year or longer duration when proposed for locations with haul routes from the operation to a state trunk line highway in excess of one (1) mile through or adjacent to areas planned or developed for residential use. The Township Board may approve such operations, provided it finds that there are specific factual circumstances which mitigate the impacts of the operation and/or which indicate that the material to be extracted is scarce in proportion to the need for said material. For the purpose of this subsection, 50 acre or larger operations shall be operations which have a 50 acre or larger area in which mining and related operations could take place in accordance with the provisions of this Ordinance.

c. Scarcity of and Need for Material to be Mined.

In determining whether or not the general standards set forth above are met, the Township Board shall consider the scarcity of and public need for the material mined in Deerfield Township and the larger regional and national community of which the Township is a part. Scarcity and public need consideration shall be weighed in relation to size, location and duration considerations.

d. Cumulative Impact of Existing and Proposed Operations.

In determining whether or not the general standards set forth above are met, the Township Board shall consider the cumulative impact of existing and proposed operations. Special land use approval shall not be granted unless the Board finds that no very serious consequences will result from the cumulative impact of the proposed operation and one or more existing operations.

e. Complete Application and Compliance with Operation and Restoration Requirements.

The Township Board shall approve the establishment or enlargement of a mining activity as a special land use only after it has examined the application for a special land use permit and found that it conforms with the requirements of this Section, and in particular, that the Operations and Restoration Plan provides for operations and restoration in accordance with the standards of Subsections 12 and 13.

98-7

Special Land Use Permit Compliance Reports by Zoning Inspector.

- a. To ensure compliance with the provisions of this Ordinance, including any conditions established pursuant to special land use approval, the Zoning Inspector shall conduct not less than one (1) inspection of each mining and quarrying operation every six (6) months. Employees and agents of the Township shall be permitted to come upon the lands subject to a mining and quarrying special use permit for the purpose of inspecting, monitoring and/or administering this Ordinance and other ordinances and lawful regulations of the Township.
- b. At least one (1) such inspection shall be completed and reported to the Township Board thirty (30) days prior to the date on which the subject special land use permit expires.
- c. The Zoning Inspector shall retain the assistance of planners, engineers and any other professionals necessary to evaluate compliance with this Ordinance.
- d. The cost of all compliance inspections shall be paid by the Applicants and such other persons, firms or corporations who have been made subject to liability pursuant to licensing.

and/or other Township regulations. Each such person, firm or corporation shall be jointly and severally responsible for the full cost of compliance inspections.

A Compliance Inspection Reserve Fund which is controlled by the Township shall be established for each special land use which is approved pursuant to this Section. The fund shall be maintained by monthly deposits made by the persons, firms and corporations responsible for paying the costs of compliance inspections. The deposits shall be equal to \$500.00 per month or six (6) cents for each cubic yard of mineral removed from the subject property during the month, whichever is greater. At the end of each calendar year, and as of the date of termination in the final year of operations, an independent certified public accountant satisfactory to the Township shall certify to the Township the amount of materials removed from the subject land during the previous year, or during such portion of the year until the date of termination, as applicable.

After thirty-six (36) monthly deposits have been made to a Compliance Inspection Reserve Fund, and so long as the balance in the fund exceeds the larger of either \$18,000.00 or the total costs of all compliance inspections made during the most recent thirty-six (36) months, then deposits to the fund may be suspended until the balance in the fund falls below the larger of either \$18,000.00 or the total cost of all compliance inspections made during the most recent thirty-six (36) months.

Should the Compliance Inspection Reserve Fund be at any time insufficient to cover the full cost of inspections, the persons, firms and corporations responsible for paying the costs of compliance inspections shall be billed directly for the difference.

Failure to pay such charges within thirty (30) days of billing shall be a violation of this Ordinance.

In individual circumstances, the Township Board may specify lower or higher monthly deposits and/or a lower or higher minimum Compliance Inspection Reserve Fund balance upon a finding that such lower or higher deposits and/or balances will be adequate or necessary to cover the costs of the compliance inspections in the particular circumstance.

98-8

Notice of Violations, Correction of Violations, Revocation of Special Land Use Permit, and Lien Against Property.

- a. Should the Zoning Inspector determine that a probable violation of the provisions of this Ordinance exists, a written notice of the probable violation and the pertinent facts relating thereto shall be served on the person designated by the Applicants to receive Township communication and on each Operator. Said person and each Operator shall have thirty (30) days to file a response to the notice and to provide the Zoning Inspector with facts and information demonstrating compliance. Should such facts and information not be provided within thirty (30) days, or should the Zoning Inspector determine that the facts and information filed fail to demonstrate compliance, the Zoning Inspector shall serve a second notice. The persons, upon whom notice is served and each Operator shall have fifteen (15) days to file a response to the second notice and to provide the Zoning Inspector with additional facts and information demonstrating compliance. Should a satisfactory response not be provided to the second notice, the Zoning Inspector shall file a notice of probable violation with the Township Board.

- b. Following the Board's receipt of the notice of probable violation, the Board shall schedule a public hearing for the purpose of hearing comments pertaining to the probable violation. The hearing shall be noticed as required by Michigan law for special land use review, provided that notice shall be provided to all Applicants, to all Lienholders and to person, firm and/or corporation who has signed the special land use permit and on any other persons, firms and/or corporations who have been made subject to liability pursuant to licensing and/or other Township regulations.
- c. Following the public hearing, the Township Board shall determine if the subject use has been operated in violation of the terms of this ordinance, including any conditions established pursuant to special land use approval.
- d. Should the Board determine that the subject use has been operated in violation of the terms of this Ordinance, including any conditions established pursuant to special land use approval, the Board shall implement such remedies as are appropriate to the circumstances. The remedies which the Board may implement shall include, but shall not be limited to, any one or more of the following:
- (1) Order that the operation and the property be brought into compliance.
  - (2) Order the restoration of all areas disturbed by mining and quarry operations in accordance with the approved restoration plan.
  - (3) Revoke the special land use-permit for mining and quarrying operations.
  - (4) Revoke all Township mining and quarrying licenses held by all



operators who are licensed to conduct operations on the subject site.

(5) Order such remedial actions as the Board may determine necessary to correct environmental or other on-site and/or off-site damage which may have resulted from operation of the subject use in violation of the requirements of this Ordinance, including the conditions of the applicable special land use permit.

(6) Take such other actions as the Board may determine are appropriate to the circumstances, but not including the actions provided for in Subparagraph g. Such actions shall be undertaken only after a second public hearing pursuant to Subparagraph f, below.

e. Pursuant to the implementation of appropriate remedies, the Board may establish such specifications for compliance as are appropriate. The Board may direct the Zoning Inspector to monitor compliance with actions ordered by the Board and report to the Board on such actions.

f. Should the Zoning Inspector report that actions to correct violations are not proceeding in accordance with specifications established pursuant to Subsection 8.e., the Board shall schedule a second public hearing with notice as provided by Michigan law for special land use approval. Subsequent to the public hearing, the Board shall determine whether actions to correct the violation have been carried out in accordance with the Board's specifications.

g. Should the Board determine that any of the specified corrective actions have not been taken, the Board shall have the right to enter on the property for the purpose of restoring the property

in accordance with the approved Restoration Plan, and/or to take such remedial action which it deems appropriate to correct environmental or other damage which may have resulted from operation of the subject use in violation of the requirements of this Ordinance, including the conditions of the applicable special land use permit, and/or to take such other actions as the Board may determine are appropriate. The cost of any such actions shall be charged against the surety deposited pursuant to subsection 9 and any other applicable surety deposited pursuant to licensing or other Township regulations. In the event that the surety deposits and other resources of the Applicants available to the Township are, in the opinion of the representatives of the Township, insufficient to cover such costs, the Township shall be entitled to recover said deficiency out of the land, and, to effectuate said right, the Township shall be entitled under such circumstances to exercise all of the rights of a first lienholder whose lien is in default, and shall be entitled to exercise all remedies available to such a first lienholder under the laws of the State of Michigan, including, but not limited to, the right to foreclose said lien and the right to obtain appointment of a receiver for any purpose.

- h. In the event that the value of the property is insufficient to cover the balance of the costs, liability shall fall jointly and severally upon the Applicants, non-applicant operators on the subject site and on all other persons, firms and/or corporations who have been made subject to liability pursuant to licensing and/or other Township regulations. Applicants on whom liability shall fall shall include Principals, Operators and others as defined in subsections 3.b.(1) through 3.b.(4) and as identified on the Special Land Use Permit. Said

liability shall fall on said Applicants based on their being named in the applicable Special Land Use Permit and those so named shall not escape liability even if they no longer meet the definition of Principals, Operators or others with an interest in the land. If a Special Land Use Permit has been amended pursuant to the provisions of subsection 4 so that one or more entities originally named as Applicants are no longer named as Applicants, then those that once were named as Applicants, but are no longer named as Applicants, shall not be liable to cover the balance of the costs in the event that the value of the property is insufficient to cover the balance of the costs. Non-applicant owners on whom liability shall fall shall include all operators licensed by the Township to conduct operations at the subject site.

98-9 Surety and Insurance Requirements.

- a. So as to ensure faithful restoration, the Applicants shall deposit with the Township a surety bond which is in form and substance satisfactory to the Township Board. No less than twenty-five (25) percent of the total bond shall be in the form of cash or an irrevocable, and unconditional letter of credit issued by a banking or savings and loan institution satisfactory to the Township Board making the Township the beneficiary thereof. With the approval of the Township Board, up to seventy-five (75) percent of the bond may be in the form of a corporate surety bond.
- b. The cash or irrevocable letter of credit plus all other components of the surety bond shall remain in force, and in the possession of the Township until the parcel or parcels have been reclaimed, and all equipment, machinery, materials, buildings and other improvements removed as required by the terms of the Ordinance.

c. In the establishment of the amount of the surety bond, the Township Board shall take into account the size and scope of the proposed operation, the current and projected costs of reclamation in the event of default by those responsible for restoration at such time as it is likely to be most costly, and other such conditions and factors as might be relevant in determining a sum reasonable in light of all the facts and circumstances. In establishing the amount of the deposit, the Board shall consider, but not be bound by, the Applicants' estimate of the amount that will be required, provided such estimate is certified as accurate by a professional engineer. In determining the amount of the Bond the Township Board may consider, but shall not be bound by an independent appraisal of the actual cost of restoration. Such an appraisal shall be prepared by appropriately qualified independent professional selected by the Township Board. Costs for obtaining such an independent appraisal shall be charged to the Applicants. Final determination of the amount of the Bond shall be made by the Township Board, but unless good cause be shown therefor, the deposit shall be in an amount not less than Twenty-Five Thousand Dollars (\$25,000.00) for the first five (5) acres or portion thereof, and a minimum of Two Thousand Dollars (\$2,000.00) for each acre over five acres. The Township Board, in considering any application to amend, modify or renew the special land use permit, may, in its discretion, increase or decrease the amount of the surety bond, based upon increased costs, new information or partial reclamation.

d. All cash deposited as surety shall be deposited in an interest-bearing account in control of the Township at a bank or savings and loan institution satisfactory to the Township, provided that all sums on deposit shall be

readily accessible to the Township in the event of need or default. Interest earned on any such deposit shall accrue in the account and shall be available for restoration and other purposes which may be charged against those liable for inspection, restoration and remediation costs pursuant to this ordinance, with the balance, if any, returned to the Applicants upon compliance with all other provisions of this Ordinance.

- e. The surety deposit shall be submitted by the Applicants prior to the issuance of the special land use permit.
- f. Monies may be released to the Applicants in proportion to the work completed on the different restoration activities after an inspection report is filed by the Township Engineer and approved by the Board. Not more than eighty (80) percent of the monies deposited shall be released until all work has been completed and subsequently inspected by the Township Engineer and approved by the Board. Upon completion of restoration and/or remediation in accordance with this Ordinance, including but not limited to successful vegetation of all areas, to the satisfaction of the Township, any balance of such deposit, together with any remaining interest thereon, shall be returned to the various Applicants in the proportions designated by the Applicants on the approved special land use permit.
- g. The amount of the surety deposit shall be subject to an annual re-evaluation of its adequacy to pay for all required restoration and remediation activities. The re-evaluation of the surety deposit shall consider changes in the Consumer Price Index for the Detroit Metropolitan Area as published monthly that the U.S. Bureau of Labor Statistics for Hourly and Clerical Wage Earners plus other pertinent factors. Pursuant to re-evaluation, the Township

Board may increase or decrease the required surety deposit. If the Township Board increases the surety requirement, the Applicants shall be notified. Within ninety (90) days of said notification, the additional surety shall be deposited with the Township in a form acceptable to the Township. Failure to deposit the additional surety within ninety (90) days shall be deemed a violation of this Ordinance. Action against said violation shall be taken pursuant to subsection 98-8 as well as any other applicable provision of law.

- h. The Township Board may, at its discretion, approve surety deposits for areas less than the total acreage for which a special land use permit is sought. However, at no time shall any excavation be undertaken unless and until sufficient surety deposit has been deposited to ensure that the restoration of the area to be disturbed conforms with all other requirements of this Ordinance.
- i. Insurance shall be a pre-condition to commencement of operations, and maintenance in full force and effect of insurance shall be a pre-condition to the right of continued operations. The Applicants shall provide binders for personal injury and property damage insurance for the project to be carried during all times which any reclamation is left to be done, and during any times any machinery and/or equipment remains on the site, or any structures, equipment or improvements to be removed remain on the site. This insurance shall be carried in an amount no less than One Million Dollars (\$1,000,000.00) for personal injury and damage to more than one person's property arising out of a single occurrence. This insurance shall cover injury or damage occurring upon the site of the operation, as well as upon injuries occurring upon adjoining property as the result of conditions or activities conducted upon the subject property.



98-10

Permit Content.

Each special land use permit issued pursuant to this Ordinance shall contain the following:

- a. The name and address of each of the Applicants for the special land use permit and each Lienholder with respect to the land subject to the lien.
- b. The name, address and phone number of the person designated by each of the Applicants and each of the Lienholders as agent for all notice, correspondence and communication.
- c. The legal description of the property to which the permit applies.
- d. The period for which the permit is valid, including its commencement date and expiration date.
- e. A statement essentially corresponding to the following: "This permit is subject in general to Special Land Use Procedures and Standards for Mining and Quarrying and other applicable provisions of Deerfield Township Ordinance No. 98 under which this special land use permit was approved, that ordinance being the one in effect on March 22, 1997, and in particular to the Operations and Restoration Plan approved pursuant to this permit and dated \_\_\_\_\_."
- f. A statement essentially corresponding to the following: This permit may be suspended or revoked in accordance with the procedures and notice requirements set forth in Deerfield Township Ordinance No 98, based upon a failure to comply with one or more of the applicable requirements, and/or the terms and conditions of this permit, or upon the grounds that the use constitutes a nuisance or danger to the public health, safety and/or welfare."

g. A statement to be endorsed by all Applicants and all Lienholders substantially in accordance with the following: "Each of the undersigned has read this permit and understands and agrees that all of the statements and contents of the Operations and Restoration Plan for the permit as approved by the Township Board, together with any conditions attached thereto by the Township Board, are incorporated herein by reference as a part of the terms and conditions hereof, together with the terms and conditions of any other applicable law, the ordinances of the Township, and any other applicable regulations. Each of the undersigned further acknowledges that employees and agents of the Township are permitted to come upon the lands at any reasonable time for the purpose of inspecting, monitoring and/or administering the ordinances and other lawful regulations of the Township, including those regulating mining, excavation and quarrying upon the land which is the subject of this permit. Each of the undersigned further acknowledges that this permit shall be recorded with the Livingston County Register of Deeds and shall constitute evidence of a first lien, prior in right to all other liens with respect to the lands subject to this permit, in favor of the Township for the purpose of securing the performance of the restoration obligations set forth in the Operations and Restoration Plan, it being understood that, in the event the surety deposits and other resources of the Applicants available to the Township are, in the opinion of the representatives of the Township, insufficient to ensure restoration of the land in accordance with the Operations and Restoration Plan, the Township shall be entitled to recover said deficiency out of the land, and, to effectuate said right, the Township shall be entitled under such circumstances to exercise all of the rights of a first lienholder whose lien

is in default, and shall be entitled to exercise all remedies available to such a first lienholder under the laws of the State of Michigan, including, but not limited to, the right to foreclose said lien and the right to obtain appointment of a receiver for any purpose, and the Township shall be authorized to engage persons on behalf of the Applicants to enter onto said land and to perform such restoration and other actions as are appropriate to effectuate the provisions of the Operations and Restoration Plan. Each of the undersigned also acknowledges that the first lien evidenced by this permit shall also be for the purpose of securing the performance such remedial action which the Township Board may deem appropriate pursuant to subsection 8.d. through g. of this Township Ordinance to correct environmental or other damage which may have resulted from operation of the subject use in violation of the requirements of this permit."

- h. A statement to be countersigned by all Applicants corresponding substantially to the following: "The undersigned have read this permit and understand and agree to be fully liable both jointly and severally for the entire cost of restoring the land pursuant to the Restoration Plan for this permit as approved by the Township Board, and also for the cost of such other actions which the Township Board may deem appropriate pursuant to subsection 8.d. through g. to correct environmental or other damage which may have resulted from operation of the subject use in violation of the requirements of this Township Ordinance. However, the undersigned understand that the liability hereby accepted shall only be for restoration and for any other costs which exceed the sum of (i) the value of the surety deposits and other funds provided pursuant to subsection 9, plus (ii) the amount realized by the

Township as a result of the sale of the land at foreclosure."

- i. A statement to be countersigned by all Applicants naming one person, firm or corporation as agent for all for the purpose of receiving notices required pursuant to this Ordinance.

9-11. Maintenance of Permit Records.

The Township Clerk shall maintain a copy of each special land use permit issued pursuant to the provisions of this Ordinance. Along with each permit approved there shall also be maintained: (1) a complete copy of the approved Operations and Restoration Plan and any conditions imposed by the Township Board pursuant to approval of the permit; and (2) a complete copy of the entire Township Ordinance under which the permit was approved. The Clerk shall certify the Operations and Restoration Plan along with any conditions attached thereto, and the copy of the Ordinance as the documents applicable to the particular special land use permit with which they are maintained. The Clerk shall record in the records of the Township and in the office of the Register of Deeds for Livingston County the permit signed by the Township Supervisor and Clerk and by all Applicants as required by subsections 10.g., h. and i. of this Ordinance. The recorded permit shall constitute evidence of a first lien, prior in right to all other liens with respect to the lands subject to this permit, in favor of Deerfield Township for the purpose of securing the performance of the restoration and other obligations pursuant to this Ordinance.

98-12 Operation Requirements for Mining, Excavation and Quarrying Special Land Uses.

Any removal operations must be conducted in a way which is compatible with existing and proposed development and in a way which protects the natural environment and minimizes negative impacts on surrounding land and development. Operation requirements as set forth in this section shall apply.

a. Conformance to Approved Operations and Restoration Plan.

Operations shall be in accordance with the detailed Plan as submitted and approved by the Township Board, said plan being submitted pursuant to 98-3, b (17).

b. Arrangement of Operation

(1) Contiguous Excavation.

All excavation, mining and quarrying activities will be operated in a consistent, contiguous fashion, so that the active operating area is mined to near final grade and capable of final closure, before the operating area is moved. As the active operating area does move, the already mined area shall be restored on a time schedule roughly simultaneous with the movement of the active operating area, so that the size of the unvegetated excavated area, including the active operating area, shall at no time exceed ten acres, or ten percent (10%) of the total site, whichever is smaller.

If materials of a significantly different character exist elsewhere on the site location, then a second area of open excavation may be simultaneously opened up for mining, but only after approval by the Township Board and confirmation by the Township Engineer that material of a significantly different character does exist at the second location and cannot be mined contiguously with one active excavation area on site. If a second open excavation area is so opened, it shall be operated in a consistent, contiguous fashion, and its operation shall be coordinated with the other site excavation to ensure progressive and coordinated closure and

restoration. Notwithstanding the fact a second excavation area is opened, the total size of all open excavation areas on any site shall not exceed ten acres, or ten percent (10%) of the total site, whichever is smaller.

(2) Minimum Setbacks for all Excavation and/or Operations Areas.

All excavation and operations areas shall comply at all times with the following setbacks:

- (a) Three hundred feet from the near edge of any roadway right-of-way;
- (b) Four hundred feet from the dwelling of any adjoining residence and from the building structure of any commercial adjoining establishments; and
- (c) One hundred fifty feet from any other boundary of the subject property.

Provided, however, notwithstanding the above-stated setbacks, a larger setback may be required by the Township Board in circumstances where a greater setback is deemed necessary to adequately protect adjacent land areas. Final grading and excavation activities may take place within 150 feet of a roadway, 300 feet of a residence or commercial building, and 100 feet of any other property line, but only for a maximum period of three months, and only when absolutely necessary to implement the approved final Restoration Plan.

(3) Frontage and Access.

each such tract of land shall have a minimum frontage on a major or



secondary thoroughfare of at least two hundred fifty (250) feet, except that the Township Board may approve a tract that has lesser frontage if it is fronted by an active mining or quarrying operation, whose timetable for development would coincide with the proposed operation and written permission for access to a major thoroughfare is secured from any owner in fee or lease holder.

(4) Processing and Other Facilities.

No processing of any nature, including but not limited to washing, sorting, / crushing, grinding or cutting, shall be conducted at any time on site without the prior written consent of the Township Board, which shall only be granted if the Applicant can demonstrate that the proposed processing operation on site is absolutely necessary to conduct a mining operation on a reasonably economic basis, and that the proposed processing operation will be muffled or otherwise controlled to ensure strict compliance with the standards set forth below in Subsection 12.c.(1)(a) through (d).

No asphalt, cement or other manufacturing operations of any nature shall be conducted at any time on site without the prior written consent of the Township Board, which shall only be granted if the Applicant can demonstrate that such proposed operation on site is absolutely necessary for conducting the mining operation on a reasonably economic basis, and that the proposed operation will be muffled or otherwise controlled to ensure strict compliance with the standards set forth below in Subsection 12.c.(1)(a) through (d).

(5) Sight Barriers.

Sight barriers, both earthen and consisting of vegetation, shall be provided to reasonably obscure operations and provide an aesthetically pleasing exterior appearance from all property lines. The sight barriers between roadways and operations areas, and between adjoining residents and operations areas, shall be more extensive than those along other interior property lines.

c. Operating Regulations.

(1) General Operating Standards.

All activities, equipment, roadways and material storage areas shall be treated, covered, muffled or otherwise controlled to ensure compliance with the following performance standards:

- (a) Operations will be conducted in a way to minimize negative impacts on adjacent areas.
- (b) Operations will be conducted in a way to minimize negative impact on groundwater, water courses, water bodies and wetlands.
- (c) Operations will be conducted in a way to minimize dust and dirt.
- (d) Equipment used shall be constructed, maintained and operated in such a manner as to eliminate, insofar as is practicable, noises, odors and vibrations which are injurious or substantially annoying to persons living in the vicinity.

(2) Hours of Operation.

Excavation, stockpiling and processing (if any) of extracted material, and all truck movements associated with the hauling of extracted material shall take place only during the following hours: Monday through Friday from 7:00 a.m. to 5:00 p.m.; and Saturday from 7:00 a.m. to 1:00 p.m., except in cases of a public emergency declared by the Township Board.

(3) Truck Routes.

Truck traffic associated with the use shall be prohibited on all roads except those for which it is specifically approved by the Township Board pursuant to special land use approval. Roads shall be approved for truck traffic so as to minimize the impact of such traffic on residential and related uses and activities.

(4) Enclosure and Spraying of Trucks.

Any and all trucks hauling any extracted materials to or from the site on rights-of-way which are subject to the jurisdiction of the Township shall, to the extent required by the Township Board after due consideration, be enclosed or covered to prevent materials from blowing or falling from trucks, and shall be sprayed and/or run through a wheelwasher on site, to prevent gravel from falling or being thrown from the wheels and undercarriage of trucks.

(5) Treatment of Private Roads to Minimize Dust.

All private access roads shall be treated so as to create dust-free surface for a distance of three hundred (300) feet from any public

access road. If at any time a non-paved surface is not kept dust-free, the Township Board shall have the right to order the private access road paved for a distance up to three hundred (300) feet from the public access road. Arrangements shall also be made to minimize dust on public access routes traveled in the Township.

(6) Processing of Material Extracted Off Site Prohibited.

No natural resource extracted outside the limits of the approved special land use area shall be brought in for washing, grading, or further processing, except in the event of a public emergency requiring the use of said natural resource, as declared by the Township Board.

(7) Fencing.

All mining and quarrying sites shall be fenced prior to the commencement of operations and prior to the placement on the site of machinery or buildings. The fencing shall completely surround the borders of the subject property; provided, however, for good cause shown in relation to the protection of public safety and in view of the operations conducted, the Township Board may, in its discretion, modify the location of fencing. The minimum specifications for the fencing shall be as follows: a six (6) foot high farm-type fence of Number 9 gauge top wire, Number 12 gauge bottom wire, Number 14 gauge stays and intermediate wires and spacing of six (6) - inches vertically by twelve (12) inches horizontally; all stays shall be of fourteen (14) gauge wire; support posts shall be spaced on sixteen (16) foot centers or less.

(8) Stockpiling of Topsoil.

Sufficient topsoil shall be stockpiled on the site so that all areas which require vegetative restoration may be recovered with a minimum of six (6) inches of topsoil when excavating operations are completed. The topsoil replacement shall be made immediately following the termination of excavating operations. All replaced topsoil shall immediately be mulched and planted with grass or other plant material acceptable to the Board so as to prevent erosion of slopes. Those lands under water or in approved beach areas are excluded from topsoil replacement and planting requirements.

(9) Explosives.

No explosives shall be used on any site with respect to which a special land use permit is or has been granted pursuant to the terms of this Ordinance except with the prior written consent of the Township Board, and then only in strict accordance with the "Regulations for Storage and Handling of Explosives," as published by the Michigan State Police, Fire Marshal Division, East Lansing, Michigan.

(10) Active Working Area.

The active operating area, which shall consist of any area that has been stripped of its previously existing vegetation or otherwise excavated, shall not exceed ten percent (10%) of the total site area, or ten (10) acres, whichever is less. As a hole is opened and an operating cliff face developed, the size of the operating cliff face shall not exceed 200 feet, as measured along the top, and the

slope of the operating cliff face shall be maintained as of the end of each work day at a grade no steeper than one foot vertical for every two feet horizontal. All other slopes in the active operating area shall be maintained at a grade no steeper than one foot vertical for every four feet horizontal.

(11) Applicability of Operations and Restoration Plan to Applicant and Independent Haulers.

Any and all haulers of mine or quarry material, including those who are not mine or quarry operators, and any and all operators who conduct any mining, excavation or quarrying activity on site, shall be subject to the requirements of the Special Use Permit, including but not limited to the Operations and Restoration Plan.

(12) License Requirements for Operators and Haulers.

This ordinance requires and the Operations and Restoration Plan shall provide that no person, firm or corporation shall operate a mining or quarrying activity without first obtaining a license from the Township pursuant to such ordinances as may from time to time be enacted by the Township. This Ordinance further requires that no person, firm or corporation shall haul from a mine or quarry more than ten (10) loads in any thirty (30) day period nor more than twenty (20) loads in any 365 day period without first obtaining a license from the Township pursuant to such ordinances as may from time to time be enacted by the Township.



Restoration Requirements.

Restoration shall be completed so as to leave the area compatible with existing and proposed development and so as to protect the natural environment and minimize negative impacts on surrounding land and development. Restoration requirements as set forth in this section shall apply.

a. Conformance to Approved Operations and Restoration Plan.

Restoration shall be in accordance with the detailed Operations and Restoration Plan as submitted to and approved by the Township Board pursuant to this Ordinance.

b. Restoration Schedule.

(1) Restoration shall commence as necessary to ensure that any unvegetated excavation area at no time exceeds the size of ten (10) acres, or ten percent (10%) of the total site area, whichever is less. Provided, however, restoration shall begin in any event within 24 months of the start of excavation operations. Once commenced, restoration shall continue on a regular and consistent basis so that the open area limitation of the lesser of ten (10) acres or ten percent (10%) of the total site area, is always maintained throughout the term of the permit.

(2) At any time if less than 1,000 cubic yards of material is removed from the site over a twelve month period of time, then all remaining grades within the active operating area shall be reduced to a slope no steeper than one foot vertical for every four feet of horizontal, and the area shall be successfully vegetated to prevent erosion. If such a site has not yet reached final grade, such closure shall be

viewed as an interim measure, and excavation activities can be recommenced by the applicant at any time during the permit period, provided the operation in full compliance with the requirements of this ordinance.

- (3) The last active operating area, and any other locations on site, shall be restored according to the final restoration provisions of the approved Operations and Restoration Plan, including but not limited to the completion of successful vegetation, within 12 months after the cessation of disposal operations.
- (4) Deviations from the timetable of the Restoration Plan shall be permitted, but only upon prior approval in writing by the Township Board of an amended soil disposal permit.

c. Restoration Standards.

- (1) All excavation shall be either to a water-producing depth or shall be graded or backfilled to ensure that the excavated area will not retain or collect stagnant water. For the purposes of this subsection, a water-producing depth shall be defined as not less than ten (10) feet below the average summer level of water in the excavation.
- (2) In the event filling of the mined area is necessary in the course of reclamation, the fill material shall consist only of soil material, which is brought into the site in compliance with the provisions of Ordinance 100
- (3) In general, grades of areas which are not permanently submerged will be gently rolling to minimize soil erosion and shall be blended into

existing grades in a harmonious manner. No unsubmerged grade shall exceed one (1) foot vertical to four (4) feet horizontal.

Grades of all areas that are permanently submerged shall not exceed one foot vertical to five feet horizontal. Notwithstanding the above, general unsubmerged grade, the grades of all areas extending out 100 feet from any water producing depth, shall not exceed one foot vertical to five feet horizontal.

- (4) Topsoil of a quality equal to that occurring naturally in the area shall be replaced on excavated areas not covered by water, roads or other structures. The depth of topsoil over the entire site shall not be less than six (6) inches.
- (5) Vegetation shall be restored by the appropriate seeding of grasses and the planting of trees and shrubs to establish a permanent vegetative cover on the land surface, to minimize erosion, and ensure long term stability of any sloped areas.
- (6) Within twelve (12) months of cessation of mining operations, all plant structures, buildings, stockpiles and equipment shall be removed; provided, however, that buildings and structures which have a function under the reclamation plan and which can be lawfully used under the requirements of the zoning district in which the property is located may be retained.
- (7) The final grades shall be designed, constructed and maintained so as to reasonably control surface water runoff and drainage.

(8) As the active, operating area moves with the completion of mining operations in a given area, the restoration of the mined area shall be accomplished on a regular and progressive basis, so as to limit the size of the active operating area, as required in subsection 12.c.(10) above.

98-14 Districts where Mining, Excavation and/or Quarrying may be Approved as Special Land Uses Pursuant to this Ordinance.

Subject to the provisions of this Ordinance, mining, excavation and/or quarrying may be approved as a special land use in any Deerfield Township zoning districts compatible with mining, excavation and/or quarrying.

98-15 Violations and Penalties; Nuisance Per Se; Abatement.

A violation of any provision of this Ordinance is hereby declared to be a nuisance per se. The Court shall order such nuisance abated, and the owner and/or agent in charge of such operation shall be adjudged guilty of maintaining a nuisance per se. Anyone violating any provision of this Ordinance shall, upon conviction thereof, be subject to a fine of not more than \$100.00 and the cost of prosecution thereof, by imprisonment in the county jail for a period not to exceed 30 days, or both. Each day that a violation is permitted to exist shall constitute a separate nuisance. Imposition of any sentence shall not exempt the offender from compliance with the requirements of this Ordinance. The rights and remedies provided herein are cumulative, in addition to all other remedies provided by law.

98-16 Validity.

This Ordinance and the various parts, sections, subsections, sentences, phrases and clauses thereof are hereby declared to be severable. If any part, sentence, paragraph, section, subsection, phrase or clause is adjudged unconstitutional or invalid, it is hereby provided that the

remainder of this Ordinance shall not be affected. The Township Board hereby declares that it would have passed this Ordinance and each part, section, subsection, phrase, sentence and clause thereof irrespective of the fact that any one or more parts, sections, subsections, phrases, sentences or clauses be declared invalid. "Subsections" as used in this Ordinance generally refer to that portion of the Ordinance identified by the Arabic numeral directly following the Ordinance number 98 as well as those parts of each subsection.

98-17. Repeal of Conflicting Ordinances.

All ordinances or parts of ordinances conflicting with the provisions of this Ordinance are hereby repealed.

98-18. Effective Date.

This Ordinance shall be in effect on and after March 22 , 1997.

98-19. Adoption

This Ordinance is hereby declared adopted by the Township of Deerfield, County of Livingston, State of Michigan, at a regular meeting of the Deerfield Township Board, held on the 13th day of February, 1997, and is ordered to be given publication in the manner prescribed by law.


CLERK'S CERTIFICATE

I, Nancy Laier, Clerk of the Township of Deerfield, Livingston County, Michigan, hereby certify that the foregoing Deerfield Township Ordinance No. 98 (Special Land Use Regulations, Procedures and Standards for Mining and Quarrying) was duly approved and adopted by the Township Board of Deerfield Township duly assembled in a regular meeting of said Board held February 13, 1997.

I further certify that A. Houghton moved the adoption of the ordinance, supported by J. McCarthy, and that the vote upon said proposed ordinance was as follows:

	<u>YES</u>	<u>NO</u>	<u>ABSENT</u>	<u>ABSTAINED</u>
Thomas A. Green, Supervisor	yes			
Nancy Laier, Clerk			absent	
James McCarthy, Treasurer	yes			
Earl Grimshaw, Trustee	yes			
Art Houghton, Trustee	yes			

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Nancy Laier, Township Clerk  
February 13, 1997

  
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Harry Scheib, Deputy Clerk  
February 13, 1997