




MINERALS PROGRAM INSPECTION REPORT
PHONE: (303) 866-3567

The Division of Reclamation, Mining and Safety has conducted an inspection of the mining operation noted below. This report documents observations concerning compliance with the terms of the permit and applicable rules and regulations of the Mined Land Reclamation Board.

MINE NAME: Fredstrom Resource	MINE/PROSPECTING ID#: M-2001-016	MINERAL: Sand and gravel	COUNTY: Boulder
INSPECTION TYPE: Monitoring	INSPECTOR(S): Amy Eschberger	INSP. DATE: November 5, 2019	INSP. TIME: 13:20
OPERATOR: Aggregate Industries - WCR, Inc.	OPERATOR REPRESENTATIVE: None	TYPE OF OPERATION: 112c - Construction Regular Operation	
REASON FOR INSPECTION: Normal I&E Program	BOND CALCULATION TYPE: None	BOND AMOUNT: \$1,000.00	
DATE OF COMPLAINT: NA	POST INSP. CONTACTS: None	JOINT INSP. AGENCY: None	
WEATHER: Clear	INSPECTOR'S SIGNATURE: 	SIGNATURE DATE: November 21, 2019	

GENERAL INSPECTION TOPICS

This list identifies the environmental and permit parameters inspected and gives a categorical evaluation of each. No problems or possible violations were noted during the inspection. The mine operation was found to be in full compliance with Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for the Extraction of Construction Materials and/or for Hard Rock, Metal and Designated Mining Operations. Any person engaged in any mining operation shall notify the office of any failure or imminent failure, as soon as reasonably practicable after such person has knowledge of such condition or of any impoundment, embankment, or slope that poses a reasonable potential for danger to any persons or property or to the environment; or any environmental protection facility designed to contain or control chemicals or waste which are acid or toxic-forming, as identified in the permit.

(AR) RECORDS----- <u>Y</u>	(FN) FINANCIAL WARRANTY----- <u>N</u>	(RD) ROADS----- <u>N</u>
(HB) HYDROLOGIC BALANCE----- <u>N</u>	(BG) BACKFILL & GRADING----- <u>N</u>	(EX) EXPLOSIVES----- <u>N</u>
(PW) PROCESSING WASTE/TAILING---- <u>N</u>	(SF) PROCESSING FACILITIES----- <u>N</u>	(TS) TOPSOIL----- <u>N</u>
(MP) GENL MINE PLAN COMPLIANCE- <u>N</u>	(FW) FISH & WILDLIFE----- <u>N</u>	(RV) REVEGETATION---- <u>N</u>
(SM) SIGNS AND MARKERS----- <u>Y</u>	(SP) STORM WATER MGT PLAN---- <u>N</u>	(RS) RECL PLAN/COMP-- <u>N</u>
(ES) OVERBURDEN/DEV. WASTE----- <u>N</u>	(SC) EROSION/SEDIMENTATION--- <u>N</u>	(ST) STIPULATIONS----- <u>N</u>
(AT) ACID OR TOXIC MATERIALS----- <u>N</u>	(OD) OFF-SITE DAMAGE----- <u>N</u>	

Y = Inspected and found in compliance / N = Not inspected / NA = Not applicable to this operation / PB = Problem cited / PV = Possible violation cited

OBSERVATIONS

This was a normal monitoring inspection of the Fredstrom Resource site (Permit No. M-2001-016) conducted by Amy Eschberger of the Division of Reclamation, Mining and Safety (Division). The operator was contacted prior to the inspection but was unable to attend. The site is located approximately two miles west of Longmont, Colorado in Boulder County. Access to the site is from the west off N 75th Street.

The mine identification sign was posted at the gated entrance off N. 75th Street. Mining activities have not yet commenced at the site. The operator does not currently know when operations will begin. **Photos 1-6** taken during the inspection are included with this report.

This is a 112c operation permitted for 266 acres (see enclosed Google Earth image of site) to mine sand and gravel. The site is bisected by St. Vrain Creek, which flows eastward across the site. The operation will mine the site in six primary phases, beginning in the areas south of the creek (Phases 1-2), then moving into the areas north of the creek (Phases 3-6). The operation will mine the site in pods ranging in size from 13-33 acres (see enclosed mining plan map). No more than two pods will be mined at any time. A total of four pods will be developed south of the creek, and a total of five pods will be developed north of the creek. The maximum mining depth will be approximately 28 feet (0-5 feet overburden + 8-23 feet deposit). Areas to be mined will be dewatered prior to excavation, and the water ultimately discharged into the creek under a CDPHE discharge permit. The operator estimates 0.5 – 1.0 acre of groundwater will be exposed on site at any time (via dewatering trenches and settling ponds). Overburden and topsoil salvaged during operations will be stored separately along the perimeter of the active pit. Mined material will be transported via a conveyor system to an on-site processing plant located north of the creek. The processing plant will include mobile processing equipment, material stockpiles, a wash pond, and settling ponds.

The approved post-mining land use for the site is wildlife habitat. The approved reclamation plan includes leaving a series of ponds and wetlands for open space preservation. Wetlands will be created by allowing the wash basins to fill in with silts to an elevation slightly above the groundwater level, and by grading the edge of the ponds adjacent to the creek to create shoreline benches. The operation will scarify the bare mineral soil in late spring to help emulate the effects of flooding and stimulate the establishment of native trees. These wetlands will extend the riparian area along the creek corridor and enhance the wildlife habitat. The operation will preserve the majority of the existing riparian area. Topsoil will be replaced on disturbed land at a minimum depth of 12 inches, including on pond slopes above the anticipated high water line. All disturbed land will be graded to 3H:1V or flatter. Pond slopes will be graded to 4H:1V above and 3H:1V below the high water line. Disturbed land will be revegetated with an upland or wetland seed mixture.

The Division initially approved a required financial warranty for the site in the amount of \$260,500.00 for a proposed maximum disturbance of 66 acres. However, given the operator does not expect mining operations to commence at the site for some time, the Division approved a Surety Reduction (SR-1) in 2010 to reduce the required financial warranty to \$1,000.00 during this period of inactivity. A stipulation of SR-1 approval was that prior to commencing with operations, the operator must submit a Surety Increase request including an updated bond estimate for the site, and receive notification from the Division the new required financial warranty has been properly submitted and accepted.

The Division also approved a Technical Revision (TR-1) for the site in 2010 to temporarily suspend the baseline groundwater level monitoring (while the site is inactive), and to resume monthly monitoring one year prior to commencement of mining. According to the operator, over nine years of monitoring data had been collected from a total of 12 site wells at the time of TR-1 submittal.

The operator has obtained a SWSP for the site, which is valid for the period of June 6, 2019 through December 31, 2019. This plan indicates the operator had anticipated beginning mining operations in June of 2019, with a total of 1.0 acre of groundwater to be exposed by the dewatering trenches and settling ponds. The plan also indicates that dedicated water shares were accepted for the proposed groundwater exposure. According to the SWSP, a well permit application had been submitted to their office, but was still pending at the time of issuance.

It should be noted, on September 18, 2014, the Division received notification from Boulder County Parks and Open Space that Preble's Meadow Jumping Mouse (Preble's) was trapped in the vicinity of this site. The Fredstrom Resource site is considered to be occupied Preble's habitat. Preble's is a protected species under the Federal List of Endangered and Threatened Wildlife. According to the U.S. Fish and Wildlife Service (USFWS), Preble's habitat is defined as 100 meters outside of the 100 year floodplain. In its last inspection report (for February 25, 2015), the Division informed the operator that prior to initiating mining operations at the site, a Technical Revision would need to be submitted to address the presence of Preble's. The Division recommended the operator consult with Boulder County and the USFWS in developing a plan to protect this threatened and endangered species.

According to the approved permit, the following items must be addressed prior to commencement of operations:

- 1) At least one year prior to operations, continue the monthly groundwater level monitoring.
- 2) At least 60 days prior to operations, submit a Surety Increase request with an updated bond estimate for the proposed maximum disturbance.
- 3) At least 30 days prior to operations, submit a Technical Revision to address the presence of Preble's at the site (in consultation with the county and USFWS).
- 4) Prior to operations (including any disturbances and/or development) occurring within the 100 year floodplain or within 400 feet of the top bank of St. Vrain Creek, whichever is farther, submit an approvable Flood Control/Mitigation Plan for the site.
- 5) Prior to operations, provide evidence that a Disposal of Dredge and Fill Material (404) Permit has been obtained for the site.
- 6) Prior to operations, provide evidence that a valid well permit and SWSP is in place for the proposed groundwater exposure at the site.
- 7) Prior to relocating one of the existing ditches within the permit area, maintain a 200 foot setback from the ditch until a structure agreement has been reached with the ditch owner and a copy provided to the Division.

PHOTOGRAPHS



Photo 1. View of permit sign posted at main site entrance off N 75th Street.



Photo 2. View looking southeast across portion of permit area located north of St. Vrain Creek. Note operations have not commenced at this time.



Photo 3. View looking northeast across portion of permit area located north of St. Vrain Creek. Note operations have not commenced at this time.



Photo 4. View looking northwest across portion of permit area located south of St. Vrain Creek. Note operations have not commenced at this time.



Photo 5. View looking north across portion of permit area located south of St. Vrain Creek. Note operations have not commenced at this time. Also note existing house (background right) which is excluded from the permit area.



Photo 6. View looking west across existing pond located in far southeastern portion of permit area which will be dewatered and mined. Note operations have not commenced at this time.

Inspection Contact Address

Christine Felz
Aggregate Industries - WCR, Inc.
1687 Cole Blvd
Golden, CO 80401

Encls: Google Earth image of site
Approved Mining Plan Map

CC: Michael Cunningham, DRMS

M-2001-016 / Fredstrom Resource / Aggregate Industries - WCR, Inc. (112c)

Red Outline = 266.0 acres = Approved Permit Area (location approximated based on approved permit maps)
(Image data from 5/31/2018)



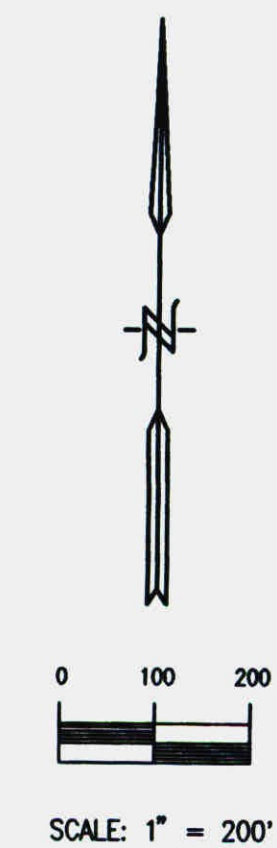
FREDSTROM RESOURCE MINING PLAN

NOTES:

- 1) THE HOURS OF MINING OPERATION AT THE SITE WILL BE MONDAYS THROUGH FRIDAYS, 7:00 A.M. TO 2:00 P.M. OR DAYLIGHT TO DARK (WHICHEVER IS MORE RESTRICTIVE). ONLY HAULING AND EQUIPMENT MAINTENANCE WILL BE ALLOWED ON SATURDAYS.
- 2) IF SUSTAINED WINDS EXCEED 30 MPH AT MINING SITES, OPERATIONS WILL CEASE UNTIL THE WIND SPEED DROPS BELOW 30 MPH.

FLOOD HAZARD LEGEND:

FLOODPLAIN INFORMATION PER FIRM FLOOD INSURANCE RATE MAP NO. 08015C0270 F, DATED JUNE 2, 1995.



LEGEND:

- PROPOSED PERMIT BOUNDARY
- LIMITS OF MINING AREAS
- - - SECTION LINE
- 100 YR. FLOODPLAIN
- EXISTING TREES
- EXISTING WATER
- - - EXISTING 2' CONTOURS
- EXISTING STRUCTURES
- EXISTING FENCE
- EXISTING WATER LINE
- ⑥ MINING SEQUENCE
- HAUL ROAD
- TEMPORARY SCREENING BERM TO BE REMOVED UPON COMPLETION OF MINING
- CONVEYOR
- EXISTING ELECTRIC LINE
- APPROXIMATE LOCATION
- EXISTING TELEPHONE PEDESTALS
- APPROXIMATE LOCATION

Permit # M-2001-016 Confidential?
Class: A2100100 Type-Seq:
From: A2100100 To:
Doc Name: A2100100.MXD
Doc Date (if no date stamp):

RECEIVED
MAY 18 2001
Division of Minerals and Geology

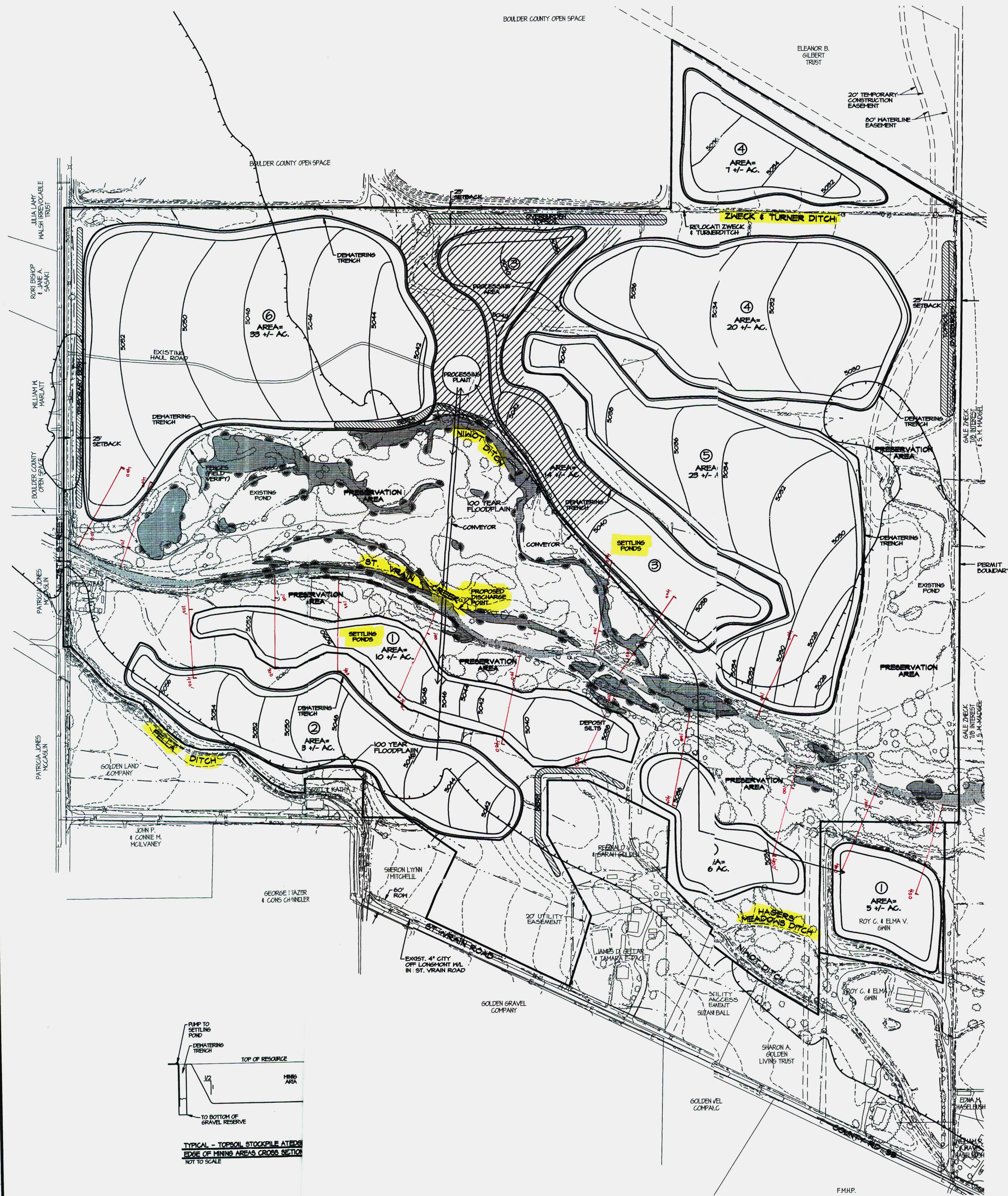
ENVIRONMENTAL DESIGN:
Anderson & Company
eco
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longmont, colorado 80501
phone (303) 776-4636
fax (303) 545-2910

PLANNING & ENGINEERING:
ROCKY MOUNTAIN CONSULTANTS INC.
825 DELAWARE AVENUE, SUITE 500
DENVER, COLORADO 80202
PHONE: (303) 772-5282

NO.	DESCRIPTION	DATE	BY
1	PC	2/15/01	BB
2	FINAL	5/18/01	BB
3	DWG	5/18/01	DB

MLRB 112 PERMIT - MINING PLAN
FREDSTROM RESOURCE
AGGREGATE INDUSTRIES WEST CENTRAL REGION, INC.
Longmont, Colorado

SCALE: 1"=200'
DATE: 3/1/01
DESIGNED BY: BB/DB/BB
DRAWN BY: KES/SR
CHECKED BY: DB
JOB NO.
80-3919.003.00
EXHIBIT C
2 OF 3



F.M.H.P.