

#74-82

BLACK & VEATCH
ENGINEERS AND ARCHITECTS

TEL. (913) 967-2000
TELEX 42-6263

1500 MEADOW LAKE PARKWAY
MAILING ADDRESS: P.O. BOX NO. 8405
KANSAS CITY, MISSOURI 64114

Grand Junction, Colorado
Municipal Service Center

B&V Project 10453
November 2, 1982

Mr. Bob Goldin
Staff Planner
559 White Avenue, Rm 60
Grand Junction, Colorado 8150

Dear Mr. Goldin:

Enclosed please find four (4) copies of the Floodplain Study Site Plan and the application for the floodplain permit for Phase II of the Municipal Service Center for the City of Grand Junction, Colorado.

The drawings and application was prepared under the direction, reviewed and sealed by Mr. Jack W. Keller, Engineer, Regional Managing Partner, Black & Veatch office, Denver, Colorado.

This data has been compiled from the information we received from your office regarding the floodplain permit application. We have attempted to answer all the questions, if we have not, please contact me in my Kansas City, Missouri office.

Very truly yours,

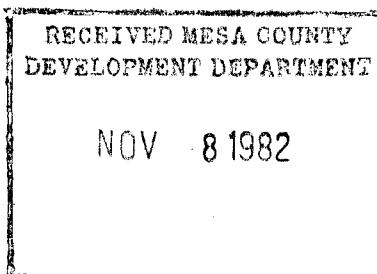
BLACK & VEATCH



Robert G. Baker, AIA
Project Architect

vp

cc: Jim Patterson



CITY OF GRAND JUNCTION FLOODPLAIN PERMIT

APPLICANT Black & Veatch Engineers and Architects

MAILING ADDRESS 1500 Meadow Lake Parkway
Kansas City, Missouri 64114

TELEPHONE HOME () WORK (913) 967-3655

OWNER (IF DIFFERENT THAN APPLICANT) City of Grand Junction, Colorado

MAILING ADDRESS 250 North Fifth Street
Grand Junction, Colorado 81501

TELEPHONE HOME () WORK (303) 244-1557

COMMON LOCATION OF THE PROJECT SITE: 830 W. Road - Grand Junction, Colorado
(STREET ADDRESS)

MESA COUNTY ASSESSOR'S TAX PARCEL NUMBER 2945-153-00-941

BRIEF DESCRIPTION OF THE PROPOSED USE OF THE SITE
Operation, offices, shops, storage and vehicle maintenance for the City's Public
Works, Utilities, Finance Stores and Parks and Recreation Departments.

RIVER, STATION: Colorado River - between stations 385 + 50 and 385 + 30.

ELEVATION OF THE 100 YEAR FLOOD EVENT: 4553.0 feet USGS Datum

DETERMINED FROM: CORPS OF ENGINEERS, FLOOD HAZARD STUDY, NOVEMBER 1976
 HUD FLOOD INSURANCE STUDY, JANUARY 1978

ENGINEER Black & Veatch Engineers and Architects

MAILING ADDRESS 12075 East 45th Avenue
Denver, Colorado 80239

TELEPHONE WORK (303) 371-1120

TO BE COMPLETED BY STAFF

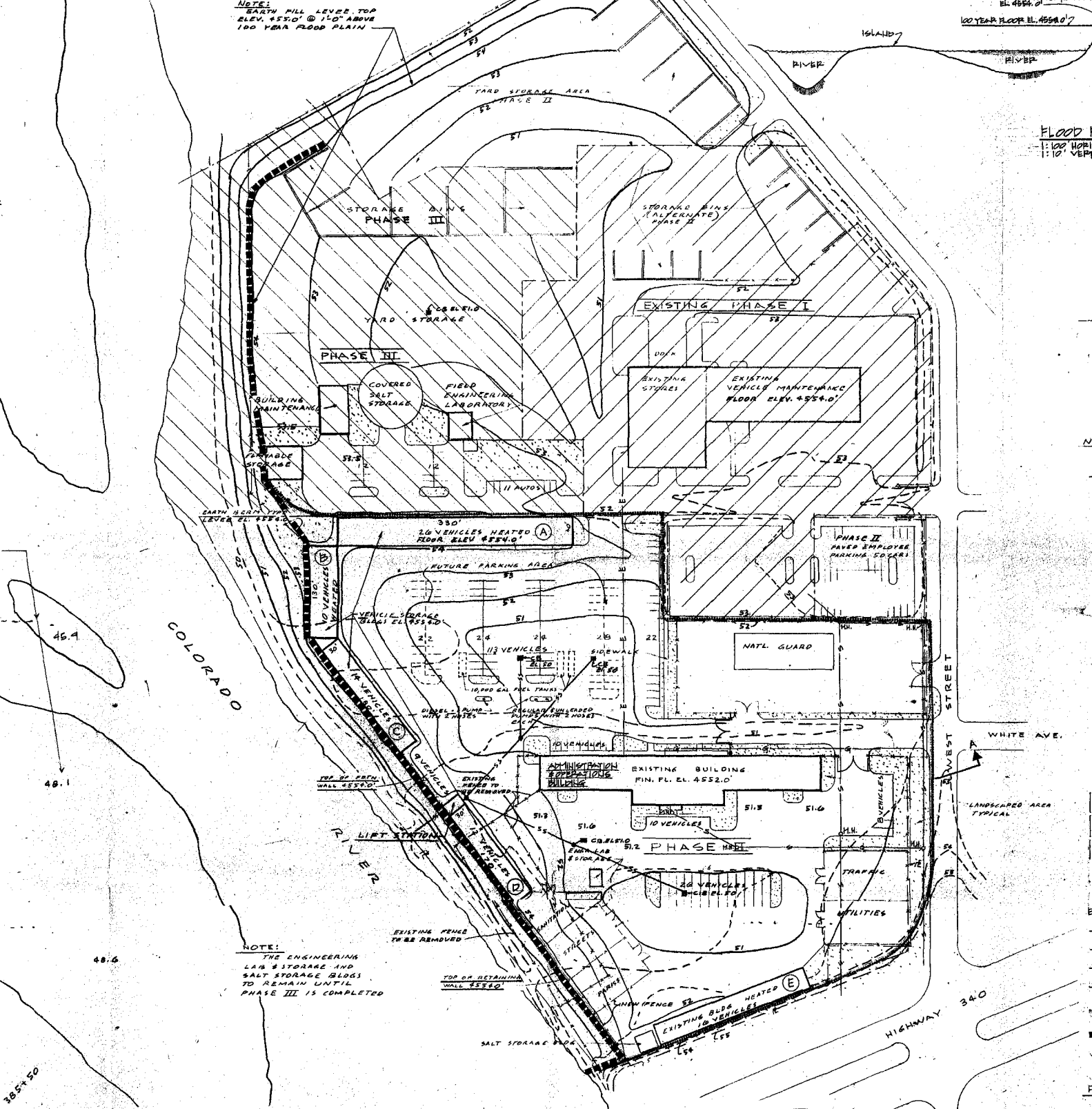
DATE RECEIVED 11/8/82 FEE No fee City Business RECEIPT NO. NA FILE NO. 74-82

REQUIRED DOCUMENTS: _____

NOTE: EARTH FILL LEVELS TOP ELEV. 4551.0' @ 1'-0" ABOVE 100 YEAR FLOOD PLAIN

100 YEAR FLOOR EL. 4554.0'

FLOOD F
1:100 HORIZ
1:10 VERT



NOTE: THE ENGINEERING LAB & STORAGE AND SALT STORAGE BLDGS TO REMAIN UNTIL PHASE III IS COMPLETED

385x30

DESIGNED

PROJECT NO. 1

Municipal Service Center
City of Grand Junction, Colorado

B&V Project 10453
October 22, 1982

The proposed new site and project development for Phase II of the Municipal Service Center for the City of Grand Junction, Colorado is located on West Street between West Street and the Colorado River and just north of Highway 340 in the City of Grand Junction, Colorado. The existing site has the potential of flooding during a 100 year flood; therefore, the plan is to develop and construct a flood protection system for this project as follows:

The 100 year flood plain elevation along the Colorado at this site is 4553.0 feet elevation U.S.G.S. Datum and the average site grade elevation is 4551.5 feet and the main Administration and Operations Building finish floor elevation is 4552.0 feet. With these low elevations our flood protection design requires a concrete retaining wall and new building foundation walls with a top elevation of 4554.0 feet to be constructed along the west edge of the property and the east bank of the Colorado River, thus with this levee in place the flood waters would not enter the site.

The site storm drainage system is designed with a lift station and a backflow prevention valve installed in the drainage lines to prevent the high water from backing up through the pipes into the site. The lift station would operate only at times when the river water level would prevent the normal flow of storm water from the site. The closing of the backflow valve and a water level valve would activate the lift station for the purpose of discharging the site storm water as necessary.

Additional information in conjunction with the application for the City of Grand Junction flood plain permit and site plan drawing is herein submitted.

1. The existing structures that will remain and be used as a portion of the Phase II of the Municipal Service Center consist of the Administration and Operation Building, constructed of masonry walls and steel framing and the finished floor elevation 4552.0 feet. The Vehicle Storage Building - "E", constructed of steel framing and metal covering with the finish floor elevation 4552.0 feet. The existing Engineering Laboratory and Storage metal buildings with the floor elevation 4551.5 will remain until Phase III is completed then they will be removed.

The new buildings will be two enclosed heated Vehicle Storage Buildings - "A" and "B". Both will be steel frame metal siding buildings with a finish floor elevation of 4554.0 feet. Buildings "C" and "D" will be unheated covered vehicle storage buildings also of steel frame and metal siding with the finish floor elevation 4554.0 feet. All new buildings will be one foot above the 100 year flood plain.

2. All storage material areas will be located on the new development site beyond the 100 year flood plain protection levee, and no material will be stored within the flood plain on this project.
3. The flood plain protection for the south portion of the site will be provided by the construction of a concrete levee or retaining wall along the west side of the property next to the river bank. The wall will be constructed well within the property boundaries away from the river bank. This construction will not revise, alter or change the river channel, water course or embankment. The concrete wall will be constructed from the bridge embankment along Highway 340 and extend northwest along the east side of the river approximately 760 feet then north approximately 130 feet as indicated on the site plan drawing.

This wall will provide protection for the site against the possibility of the 100 year flood by being constructed with the top elevation established at 4554.0 feet or one foot above the 100 year flood plain level.

4. This flood plain protection or proposed site development will not create any water course alterations or relocations.
5. The effects of this development on adjoining, upstream and downstream properties at the time of the 100 year flood, will not cause an increase in flood water heights, increase in water flow velocity or a change in direction. This project will not increase the possibility of erosion to downstream properties or to scour adjacent or upstream properties. The possibilities of toxic or hazardous materials being released from this project during a 100 year flood is not probable as these types of materials are not used or stored at this site other than vehicle refueling gasoline and that will be contained in approved underground storage tanks.
6. As indicated on the site drawing the flood waters will not be able to encroach upon the site property with the new concrete retaining wall levee, and the backflow prevention valve installed in the storm water drain lines will prevent water from the river backing up through storm lines onto the property.

7. The project utilities such as sanitary sewer, domestic water, natural gas and electric power will be protected by eliminating the flooding possibility with the construction of the new levee retaining wall and constructing and setting the various utility meters, switches, valves, etc. above the 100 year flood plain elevation of 4553.0 feet.



DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
650 CAPITOL MALL
SACRAMENTO, CALIFORNIA 95814

REPLY TO
ATTENTION OF SPKCO-0

28 September 1982

Mr. Robert Baker
Black & Veatch
1500 Meadow Lake Parkway
Kansas City, Missouri 64114

Dear Mr. Baker:

This refers to a site visit by Corps personnel from our Grand Junction Regulatory Office. The site is located along the Colorado River within Section 15, Township 1 South, Range 1 West, Grand Junction, Mesa County, Colorado.

Our inspection has determined that a Department of the Army permit would not be required as your project would not require work within the waterway or its adjacent wetlands.

If you have further questions regarding this matter please contact our Grand Junction Regulatory Office, (303) 243-1199.

Sincerely,

D. A. DENNIS
Chief, Construction-Operations
Division

Copy furnished:

Department of Health
Denver, Colorado 80220

U. S. Environmental Protection Agency
Denver, Colorado 80203

U. S. Fish & Wildlife Service
Lakewood, Colorado 80226

Division of Wildlife
Denver, Colorado 80216

Mr. Jim Patterson
Director of Public Works
215 N. 5th Street
Grand Junction, Colorado 81501