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File 1988-0004 Project Name: Minimum Security Center-549 Pitkin- Special Use

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		A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the in some instances, not all entries designated to be scanned by the department are present in the file. There are also documents specific to certain files, not found on the standard list. For this reason, a checklist has been provided. **Remaining items, (not selected for scanning), will be marked present on the checklist. This index can serve as a quick guide for the contents of each file.** **Files denoted with (**) are to be located using the ISYS Query System. Planning Clearance will need to be typed in full, as well as other entries such as Ordinances, Resolutions, Board of Appeals, and etc.**
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X	X	**Review Sheet Summary**
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		Evidence of title, deeds, easements
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DOCUMENTS SPECIFIC TO THIS DEVELOPMENT FILE:

X	X	Action Sheet			
X	X	Review Sheet Summary			
X		Review Sheets			
X		Development Application – 12/3/87			
X		Letter from Mike Kelly, Project Coordinator, Mesa County Sheriff's Office to Mike Sutherland re: paving over trench in the alley – 2/24/88			
X	X	Letter from Don Newton to John Elmer, Arix Corporation re: clean-out station should be connected to the storm sewre pipe with 45 degree storm fitting- 2/17/88			
X	X	Letter to serve as official notification of approval of the permit – 3/7/88			
X	X	Subsurface Soils Exploration – Low-risk Detention Center – 8/20/87			
X	X	Site Plan – (to be scanned)			
X		Notice of Special Use Application – 1/22/88			

2945-143-32-012
Claire's Auto Service
524 Pitkin Avenue
Grand Jct. CO81501

2945-143-32-013
Myrtle G. Ellis
544 Pitkin Avenue
Grand Jct. CO81501

2945-1-43-40-003
Archie E. Vanzant
529 Pitkin
Grand Jct. CO81501

2945-143-40-004
Barbara Gililland
P.O. 1844
Grand Jct. CO81502

2945-143-40-005
Donald M. Jensen
535 Pitkin
Grand Jct. CO81501

2945-143-40-010
John C. Heideman
3012 Poppy Street
Grand Jct. CO81506

2945-143-40-012
Vernon L. Lehr
3612 E 1/4 Road
Palisade, CO81526

2945-143-40-013
Barry D. Smith
544 South Avenue
Grand Jct. CO81501

2945-143-40-014
Lighthouse Gospel Ministry
550 South Avenue
Grand Jct. CO81501

Wm. E. Foster
P.O. 1887
Grand Jct. CO81502
2945-143-41-001

2945-143-41-004
Raymond A. Meacham
306 Main Street
Grand Jct. CO81501

2945-143-40-938
Mesa County Work-Release
Center

2945-143-32-941
City of Grand Jct.
Parking lot.

Mesa County Administration
750 Main St.
Grand Junction, CO 81501

Mike Kelly
655 Ute Ave.
Grand Junction, CO 81501

#04 83

MESA COUNTY PROPOSED MINIMUM-SECURITY DETENTION CENTER
PROJECT NARRATIVE FOR SPECIAL USE PERMIT

On April 1, 1987, the Board of Mesa County Commissioners unanimously passed a resolution to adopt the findings of a citizens jail task-force that had been meeting for nine months to study a growing overcrowding problem in the present county jail and suggest long-term solutions to resolve community jail space requirements.

One of the major task-force recommendations called for the immediate planning and construction of a cost-effective 40 bed low-risk detention facility to house appropriate non-violent pre-sentenced and sentenced misdemeanant offenders. This less expensive construction would alleviate the need for 40 more beds in the planned new secure jail.

The proposed low-risk facility will be built on lots 13 and 14 of block 148 in the downtown section of the City of Grand Junction, Colorado located at 549 Pitkin Avenue. This 50 x 125' site is located immediately adjacent to the existing Mesa County Work-Release Center which was constructed in 1980.

The new building will be located approximately 15 feet west of the Work-Release Center and will be connected to that building via an enclosed breezeway. By connecting the two buildings, the County will experience staffing cost savings for the lifetime of the project. A smaller increase in staff numbers will be required to supervise, monitor, and provide 24 hour coverage than if the two buildings were located on different sites.

Sewer, water, and trash collection will be provided by the City of Grand Junction. The Public Service Company of Colorado will supply needed natural gas and electricity to the project.

The building is located across Pitkin Avenue from the Grand Junction Police Department and the Grand Junction Fire Department.

The design and construction of the new building will basically replicate the footprint and architectural style of the existing 9000 square feet Work-Release Center. The two story structure is being designed to comply with all applicable building and life-safety codes.

The first floor will contain a fully equipped commercial grade kitchen capable of providing food service to 80 inmates, a dining area, office space and handicapped accessible restroom facilities for visitors, staff and inmates.

The second floor will provide 2 man sleeping rooms, shower facilities and adequate restrooms to meet the needs of inmates housed therein.

A closed-circuit television system will be installed in the hallways of the new building and retrofitted into the existing building to electronically monitor inmate movements and protect against vandalism and improper behaviors.

Upon completion of the new building, the existing building will receive some minor remodeling. Improvements will be made in the heating, ventilation, and air-conditioning systems. The fire alarm system will be upgraded and other changes will be effected to comply with building code changes implemented since the 1980 construction.

By a stipulated Federal Court Order, the new low-risk facility is to be operational by April 1, 1988.

It is anticipated that the function of the low-risk facility may be converted for Work-Release inmates after the completion of the new county jail in 1991.

SUBSURFACE SOILS EXPLORATION

LOW-RISK DETENTION CENTER

549 PITKIN AVENUE

GRAND JUNCTION, COLORADO

Prepared for:
Mesa County Sheriff's Department
P.O. Box 20000-5016
Grand Junction, CO 81502

Prepared by:
Lincoln-DeVore, Inc.
1441 Motor Street
Grand Junction, CO 81505

Lincoln DeVore

1441 Motor
Grand Junction, Colo 81501
(303) 242-8968

August 20, 1987

Mesa County Sheriff's Department
P.O. Box 20000-5016
Grand Junction, CO 81502

Attn: Mr. Mike Kelly

RE: SUBSURFACE SOILS EXPLORATION

LOW-RISK DETENTION CENTER

549 PITKIN AVENUE

GRAND JUNCTION, COLORADO

Gentlemen:

Transmitted herein are the results of a Subsurface Soils Exploration and Foundation Recommendations for the proposed low-risk detention center.

If after reviewing the contents of this report, any questions remain, please do not hesitate to contact this office at any time. This opportunity to provide Geotechnical Engineering services is sincerely appreciated.

Respectfully submitted,

LINCOLN-DeVORE, INC.

COLORADO REGISTERED PROFESSIONAL ENGINEER
WALTER E. VANDERPOOL
22395

By: Walter E. Vanderpool
Walter E. Vanderpool
Professional Engineer
Grand Junction Office

Reviewed by: George D. Morris, P.E.

WEV/jb

LDTL Job No. 65363J

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INTRODUCTION:

Project Description:

This report presents the results of our Geotechnical Evaluation performed to determine the general subsurface conditions of the site applicable to the construction of a one to two story, low-risk detention center. The site is located on the south side of Pitkin Avenue between 5th and 6th Streets in the central part of the city of Grand Junction, Colorado. A vicinity map is included with this report indicating the general site location.

Although we have not seen a set of the proposed building plans, it is our understanding that the structure will be similar in design to the two story metal sided building immediately east of this site and will be 40 by 113 feet in plan area. Foundation loads for this type of structure are relatively light to medium weight in magnitude. Typically, foundation wall loads will be on the order of 2000 to 3000 pounds per foot with column loads on the order of 30 to 50 kips per column.

The work on this project was authorized by Mr. Mike Kelly of the Mesa County Sheriff's Department on July 28, 1987. The field exploration was conducted on August 11, 1987, in conjunction with work for Storage Tank Technology, Inc.

Project Scope:

The purpose of our exploration was to evaluate the surface and subsurface soil and geologic

conditions of the site and, based on the conditions encountered, to provide recommendations pertaining to the geotechnical aspects of the site development as previously described. Additional subsurface exploration was performed for Storage Tank Technology personnel to obtain soil samples and mointor subsurface conditions with regard for subsurface organic pollutants.

This report provides recommendations to assist the Architect and Structural Engineer in designing foundations for a low-risk detention center of one to two stories in height.

The scope of our geotechnical exploration consisted of a surface reconnaissance, subsurface exploration, obtaining representative soil samples, laboratory testing of these soil samples, analysis of the field and laboratory data, and a review of available geologic literature.

Specifically, the intent of this study is to:

a. Explore the subsurface conditions to the depth expected to be influenced by the proposed construction.
b. Evaluate, by laboratory and field tests, the general engineering properties of the various soil strata encountered.
c. Develop geotechnical criteria for site grading and foundation design.
d. Identify potential construction difficulties and provide recommendations concerning these problems.

FIELD EXPLORATION:

The field exploration was performed on August 11, 1987. This consisted of a site reconnaissance by the Soils Engineer and the drilling of three exploratory test borings for geotechnical sampling and evaluation.

Two additional shallow test borings were drilled in areas of relatively deep fill near the test boring identified as Test Boring No. 2. In addition, two test borings were drilled for Storage Tank Technology personnel to obtain samples for chemical analysis. The test borings sampled by Storage Tank Technology personnel are shown on the attached Test Boring Location Diagram.

The test borings for geotechnical sampling were drilled around the perimeter of an existing masonry building. These borings were located so as to obtain a reasonably good profile of the subsurface soil conditions. All borings were drilled with a truck-mounted CME 45 drill rig. The test borings were advanced using continuous flight auger to depths varying from 20 to 23 feet. Samples were taken with thin-walled Shelby tubes, a lined California spoon, a standard split-spoon, and by bulk methods. Logs describing the subsurface soil profile encountered are included with this report.

The lines defining the change between soil types or rock materials on the Boring Logs and Soil Profiles are determined by interpolation and are, therefore, approximations. The transition between soil types may be abrupt or may be gradual.

LABORATORY TESTING:

Laboratory tests were performed on representative soil samples from the borings to determine their relative engineering properties. These tests included in-place moisture content, dry density, unconfined compressive strength, one dimensional swell/consolidation characteristics, grain size distribution, atterberg limits, and sulfate content. The tests were performed in accordance with test methods of the American Society for Testing and Materials or other accepted standards. The laboratory test results are included in this report. The in-place moisture content, dry density, and penetration test results are shown on the Drill Logs at the sampling point.

FINDINGS:

Site Description:

The site is a rectangular shaped parcel approximately 50 by 125 feet in plan area. The site is presently occupied by a one story masonry structure approximately 30 by 60 feet in plan area. The site is located on the south side of Pitkin Avenue between 5th and 6th Streets.

The existing masonry structure exhibits evidence of large amounts of differential settlement in the form of masonry wall cracks. These cracks are most apparent in the south wall, however, they also occur in the east wall. The cracks in the south wall indicate that both the east and west walls have tilted outward as a result of differential settlement across their footings. The structure is presently used as a garage and auto body shop. It is possible that some of the masonry cracks could be the result of impact loads on the walls.

The existing ground surface in the area is nearly flat. There is a slight overall local gradient down toward the southwest. The ground surface throughout the area has been reworked and regraded by previous construction and land use. Surface drainage is controlled to a large extent by streets and previous construction activity.

The site is located on the alluvial plain of the Colorado River. The present course of the river is located approximately 1/2 mile south and west of the site. The site is above the limits of the predicted 100 year floodplain of the Colorado River.

General Geology and Soil Description:

Published geologic maps of the area indicate that the site is underlain by bedrock of the Mancos Shale Formation. Bedrock was not encountered in any of the test borings drilled at this site. Previous experience in the area indicates that bedrock will occur beneath the alluvial deposits at a depth of 28 to 35 feet below the present ground surface. The formational shale outcrops in the south bank of the Colorado River channel south of the site and in the Bookcliffs to the northeast.

The Mancos Shale can be broadly described as a thin bedded, dark gray to black marine clay shale from the Cretaceous Period. The shale is easily weathered by exposure to wetting and drying and by exposure to air and temperature fluctuations. Portions of the shale are bentonitic and therefore, expansive, however, the shale is located below the groundwater table at this site and at such depth as to have little or no effect upon shallow foundations or driven pile foundations at this site. If drilled piers founded in the formational shale are planned, the expansive nature of the shale must be given consideration.

The formational shale bedrock is covered by a layer of coarse grained, poorly graded gravel alluvium deposited in the past by the Colorado River. None of the test borings fully penetrated the coarse alluvium at this particular site, however, this strata tends to vary from 7 to 15 feet in thickness in the area. The coarse alluvium was encountered in each of the three test borings at a depth of 14 to

15 feet below the present ground surface. The coarse alluvium is considered to provide good foundation support for medium weight to moderately heavy foundation loads.

The poorly graded gravel alluvium is covered by 1 to 3 feet of finer grained sandy, silty, and clayey floodplain alluvium. These materials occur in thin layers and lenses 6 inches or less in thickness. These materials are normally consolidated and were encountered in a low to medium density condition.

The remaining native soil deposits consist of fine to very fine grained silts and lean clay. These sheetwash and floodplain deposits were encountered in a low density condition and are subject to consolidation settlement under moderate foundation loads.

The majority of the site is covered by man-made fill. At Test Boring No. 1, the fill thickness is on the order of 6 inches and consists of well graded gravel. In the area of Test Boring No. 2, the man-made fill extends to a depth of 7 to 8 feet. This fill consists of open graded 1/2 to 1/4 inch gravel with very little fines. This gravel fill was encountered in a low density, very loose condition. At Test Boring No. 3, the upper 2 1/2 to 3 1/2 feet of the soil profile consisted of fine grained clayey fill containing engine parts, battery cables, and used oil contamination. None of the fill materials encountered on the site are considered suitable for support of foundations for the proposed structure.

Soil Type No. 1, which is typical of the fine grained native floodplain deposits, classified by the Unified Soil Classification System as lean clay (CL). Soil Type No. 1 is moderately plastic, compressible, and was encountered in a soft, moist to saturated condition. A strong odor of gasoline was noted in this material. Soil Type No. 1 was also found to contain sulfates in quantities detrimental to Type I Cement. This soil type was encountered beneath the man-made fill to a depth of 13 to 15 feet in all of the test borings. Dry density ranged from 96.3 to 97.0 pcf. Moisture content ranged from 11.9 to 25.2%. Unconfined compressive strength was found to be 1060 psf.

Soil Type No. 2, which is typical of the Colorado River alluvium, classified by the Unified Soil Classification System as a poorly graded gravel (GP) of very coarse grain size. Soil Type No. 2 was encountered in a medium to high density, saturated condition. The gravel is well rounded and highly permeable. The saturated moisture content ranged from 9.1 to 12.4%. The dry density of this soil strata was found to be 111.5 pcf in Test Boring No. 2 at a depth of 14 1/2 feet below the present ground surface.

Groundwater:

A free water table developed at a depth of 16 feet below the ground surface in Test Boring No. 1 during drilling. Twenty-four hours after drilling, Test Boring No. 1 had caved at a depth of 15 feet and a free water level of 13 feet 4 inches and 13 feet 6 inches had developed in Test

Borings No. 2 and No. 3. Due to capillary rise, wet conditions should be expected 5 to 7 feet above the water table. The groundwater level should be considered a permanent feature of the site. The groundwater level will tend to fluctuate seasonally in response to environmental effects and irrigation practices in the area. If basement levels are planned, a drain system, sump and pump will be required to control seepage.

CONCLUSIONS AND RECOMMENDATIONS:

General Discussion:

No geologic conditions were apparent during our field exploration which would preclude the site development, provided the recommendations contained herein are fully complied with. The site is covered by varying thicknesses of man-made fill. These fill materials are also highly variable ranging from loose fine gravel to clayey oil contaminated fill and trash debris. These fill materials are unsuitable as foundation soil for the proposed building.

The underlying lean clay floodplain deposits are soft and compressible. Damaging amounts of settlement would be predicted if foundation soil pressures exceed 1000 psf or if foundation loads exceed 2000 pounds per foot of wall or 20 kips per column on the native soils.

The presence of man-made fill in varying thickness and the soft condition of the fine grained native clayey soil will complicate the proposed construction somewhat. If very little settlement can be tolerated, or if foundation loads will exceed 2000 pounds per foot of wall or 20,000 pounds per column, then some foundation soil improvement would be required for shallow foundations. Alternatively, deep foundations consisting of driven piles could be used.

Based upon our understanding that the structure will be 40 by 113 feet in plan with a steel frame and light walls and the presence of varying amounts of unsuitable fill requiring overexcavation during site preparation, we believe that the cost of placing structural fill to support foundations

will be competitive with the cost associated with a deep foundation system. The remainder of this report is directed toward the site preparation required to support the proposed building on shallow foundations. If a deep foundation system is desired, the additional recommendations to design a deep foundation system can be easily provided at a later date upon request.

Because of the compressible nature of the underlying lean clays, we recommend that the existing site grade should not be raised significantly. Raising the site grade would add load and cause settlement in the clay layer. The amount of settlement would depend upon the thickness of the fill placed to raise the grade. By way of example, placing 2 to 3 feet of fill would probably cause settlement on the order of 1 to 2 inches over a 4 to 6 year period.

Site Preparation:

Site preparation should proceed by removing all existing on-site fill down to the native soil. Some of the loose, fine gravel encountered near Test Boring No. 2 may be salvageable for other off-site purposes, however, none of the fill encountered during drilling is considered suitable for use as structural fill beneath foundations. Additional overexcavation will probably be required in areas of shallow fill.

The minimum depth of overexcavation beneath the building will depend to an extent upon the type of shallow foundation system selected for the proposed

building. Two general types of shallow foundation system could be considered for this site. One shallow foundation alternative could consist of conventional spread footings and stem walls placed on compacted structural fill with an isolated interior floor slab on grade. The second alternative could consist of a ribbed, structurally reinforced slab placed on a compacted structural fill throughout the building area. This second alternative would be best suited to a square or rectangular building with interior bearing walls and a floor at one elevation throughout.

Site preparation after removing the existing fill will depend to an extent upon the type of shallow foundation system designed.

Site Preparation for Conventional Shallow Foundations:

If a conventional shallow foundation system consisting of spread footings and stem walls with an isolated interior slab is used, the site preparation after removing all existing fill should proceed by extending the overexcavation beneath all footings to a minimum of 3 feet below the base of the footing and for a distance of 3 feet beyond the footings in both directions. Isolated interior column footings, if any, should be overexcavated to a minimum depth of at least one pad width below the foundation level. This overexcavation should extend beyond the pad in all directions a distance equal to the pad dimensions. The overexcavated foundation area could then be filled with a compacted, granular structural fill. The type of material and the methods for placement and compaction are

described later in this report. Assuming this structural fill is placed and compacted in accordance with methods described in this report, conventional shallow foundations designed for a maximum allowable bearing capacity of 1200 psf would be appropriate. No minimum soil pressure would be required.

Site Preparation for a Reinforced Slab on Grade Foundation:

If the building is to be supported on a structurally reinforced foundation floor slab on grade, the overexcavation beneath the building area should extend to a minimum depth of 1 1/2 feet below the bottom of the structural slab. Additional overexcavation will be required in at least some areas to remove the existing man-made fill. This overexcavation should extend a minimum of 2 feet beyond the building line. This overexcavated area could then be filled with a compacted, granular structural fill. Assuming this structural fill is placed and compacted in accordance with the methods described in this report, the reinforced structural slab foundation system should be designed for a maximum allowable bearing capacity of 500 psf. No minimum soil pressure will be required.

Structural Fill Placement and Compaction:

All structural fill placed beneath foundations and slabs on grade should consist of well graded granular soil. The structural fill should be non-plastic and should contain no rock larger than 6 inches. After the site is overexcavated to remove all existing fill and as recommended for the foundation system to be used, the structural fill should be spread in uniform horizontal lifts no more than 8 inches in loose

thickness. The moisture content of the structural fill should be adjusted as necessary so that the optimum Proctor moisture content, +/-2%, during placement and compaction.

Each fill lift must then be compacted by mechanical means to a minimum of 95% of the soils maximum Proctor dry density, ASTM D-698. A minimum of one density test for each 1500 square feet of fill lift placed is recommended to assure that adequate compaction is achieved. Any area where failing tests occur must be reworked, recompacted, and retested until passing tests are obtained prior to placing additional fill.

Due to the soft condition of the native subgrade soils, it may be necessary to place a layer of reinforcing and separating geotextile fabric beneath the structural fill to confine the structural fill and control pumping or rutting. Placement and compaction of structural fill should proceed in uniform horizontal lifts to the foundation level.

Settlement:

Assuming the structural fill is placed and compacted in accordance with the recommendations provided, the foundation wall loads do not exceed 3000 pounds per foot, column loads do not exceed 50 kips, and the foundation soil pressure does not exceed those recommended for the specific foundation type, then normal consolidation settlement should not exceed 1 inch and differential settlement should not exceed 2/3 of the normal consolidation settlement. If settlement must be

limited to less than 1 inch, then a deep foundation system, including a structural floor slab supported by the deep foundation system would be required.

Conventional Shallow Foundations:

Where conventional shallow foundation systems are used, it is recommended that they be well balanced and heavily reinforced. Contact stresses beneath exterior foundation walls should be balanced to within +/- 300 psf at all points. Isolated interior column footings should be designed for unit loads of about 150 psf less than the average of those selected for the exterior walls. The criterion for balancing will depend somewhat upon the nature of the structure. Single-story, slab on grade structures may be balanced on the basis of dead load only. Multi-story structures should be balanced on the basis of dead load plus approximately one-half the live load.

Stem walls, for a shallow foundation system, should be designed as a grade beam capable of spanning at least 15 feet. These "grade beams" should be horizontally reinforced both near the top and near the bottom. Major reinforcing should be near the bottom of the wall section. The horizontal reinforcement required should be placed continuously around the structure with no gaps or breaks unless specially designed. Additional slant reinforcing (at 45^{o}) should be placed at any step in the foundation walls. Vertical reinforcing will not be required to resist lateral pressures unless the loaded wall exceeds 5 feet in height.

Where the stem walls are relatively shallow, vertical reinforcing will probably not be necessary. However, where the walls retain soil in excess of about 5 feet in height, vertical reinforcing may be necessary to resist the active pressure of the soils along the wall exterior. To aid in designing such vertical reinforcing, the following equivalent fluid pressures can be utilized:

Soil Type No. 1 - Lean Clay (CL):
Active Case - 45 pcf
Passive Case - 120 pcf

It should be noted that the above values should be modified to take into account any surcharge loads applied at the top of the walls as a result of stored goods, live loads on the floor, machinery, or any other externally applied forces. The above equivalent fluid pressures should also be modified for the effects of any free water table.

If a rigid frame (or steel frame) building should be used, then the foundation configuration would probably take the form of isolated bearing pads being located directly beneath the exterior wall columns with a concrete grade beam spanning from pad to pad supporting the exterior wall. In this event, the exterior grade beams should be designed to span at least half the distance between pad to pad or the 15 foot dimension, depending upon which value is greater. Once again, the grade beams should be horizontally reinforced continuously around the building exterior with no gaps or breaks unless they are designed. The majority of the reinforcement should be placed near the top of the section in this instance.

The horizontal thrust normally generated at the foundation line by rigid frame buildings should not be resisted by "hairpins" embedded into the floor slabs. This horizontal force should be resisted by either threaded tie rods or reinforcing bars extending from pier to opposite pier below the finished floor slab line. All fasteners should either be encased in concrete or covered with a heavy coat of bituminous paint to ensure long-term stability.

The bottom of all foundation components should rest a minimum of 2 feet below finished grade or as required by the local building codes. Foundation components must not be placed on frozen soils.

Structural Slab on Grade Foundations:

Assuming the site is cleared of all existing man-made fill and replaced with compacted structural fill in accordance with the recommendations previously provided, a reinforced concrete structure slab foundation system could be used at this site. The exterior edge of the structural slab should be turned down to provide a minimum of 2 feet of frost protection.

The thickness of the slab, the reinforcing type, size, and location will depend upon the building wall and column loads as well as the elastic properties of the concrete and the modulus of subgrade reaction for the structural fill and native subgrade. For design purposes, the modulus of subgrade reaction on 1 1/2 feet of compacted structural fill may be taken as 200 pci.

Foundation design for a reinforced slab foundation should be in accordance with Westergaard's Theory or Design Procedures published by J. J. Panak and J. B. Rauhut, "Behavior and Design of Industrial Slabs on Grade" ACI Journal, May 1975.

Reinforcement by post-tensioning methods could permit a reduction in slab thickness and possibly a savings in reinforcing costs. However, the material cost savings might not be fully realized due to a lack of local contractor experience in post-tension concrete construction.

Isolated Floor Slabs on Grade:

Prior to placing isolated floor slabs on grade in conjunction with the conventional shallow foundation alternative, all existing man-made fill, topsoil, and debris must be removed and replaced with compacted structural fill in accordance with procedures previously described.

Where isolated floor slabs are used, they may be placed directly on grade or over a compacted gravel blanket of 4 to 6 inches in thickness. Under no circumstances should this gravel pad be allowed to act as a water trap beneath the isolated floor slab. A vapor barrier is recommended beneath any and all isolated floor slabs on grade which will lie below the finished exterior ground surface. All fill placed beneath the interior isolated floor slabs must be compacted to at least 95% of its maximum Proctor dry density, ASTM D-698.

All isolated floor slabs on grade must be constructed to act independently of the other structural portions of the building. These isolated floor slabs should contain deep construction or contraction joints to facilitate even breakage and to help minimize any unsightly cracking which could result from differential movement. Isolated floor slabs on grade should be placed in sections no greater than 20 feet on a side. Prior to constructing slabs on grade, all existing topsoil and organics must be removed from the building interior. Likewise, all foundations must penetrate the topsoil layer.

Grading, Drainage, and Backfill Compaction:

Adequate drainage must be provided in the foundation area both during and after construction to prevent the ponding of water. The ground surface around the building should be graded so that surface water will be carried quickly away from the structure. The minimum gradient within 10 feet of the building will depend upon surface landscaping. Paved areas should maintain a minimum gradient of 2%, while landscaped areas should maintain a minimum gradient of 5%. Roof drains must be carried across all backfilled areas and discharged well away from the structure.

If adequate surface drainage cannot be maintained or if any subsurface seepage isencountered during excavation for foundation construction, then a perimeter drain must be recommended for this building. This drain would consist of a perforated drain pipe, gravel collector and sand filter (or acceptable filter fabric layer). If sufficient

topographic fall does not exist on the site to allow daylighting of the drain pipe, then a sealed sump and pump arrangement would be required to remove the collected moisture. Dry wells should not be used on this site.

A perimeter drain including a sealed sump and pump with a discharge to the city storm drain system will be required if any floor area is located below the finish grade.

The existing drainage in the area must either be maintained or improved. Water should be drained away from the structures as rapidly as possible and should not be allowed to stand or pond in the area of the buildings. The surface drainage across the entire property must be carefully controlled to prevent infiltration and saturation of the foundation soils. All backfill around the buildings should be compacted to a minimum of 90% of its maximum Proctor dry density, ASTM D-698. Roof drains must be carried across all backfilled regions and discharged well away from the structures.

No major difficulties are anticipated in the course of excavating into the surficial site soils that consist of man-made fill and debris placed over soft, fine grained lean clays. Some pumping and rutting can be anticipated in excavations over 3 feet deep. Excavation with a hydraulic backhoe could be required where excavations are more than 3 feet deep. It is possible that some safety provisions such as the sloping or bracing of the sides of excavations over 5 feet deep could be necessary. Any such safety provisions should

conform to reasonable industry safety practices and applicable OSHA regulations.

Corrosive Soils:

Some of the finer grained soils encountered across the site were found to contain sulfates in detrimental quantities; therefore, a Type II Cement is recommended for use in all concrete which will be in contact with all clayey foundation soils. Under no circumstances should calcium chloride ever be added to a Type II Cement. In the event that a Type II Cement is difficult to obtain, a Type I Cement may be substituted, but only if it is protected from the soil by an impermeable membrane.

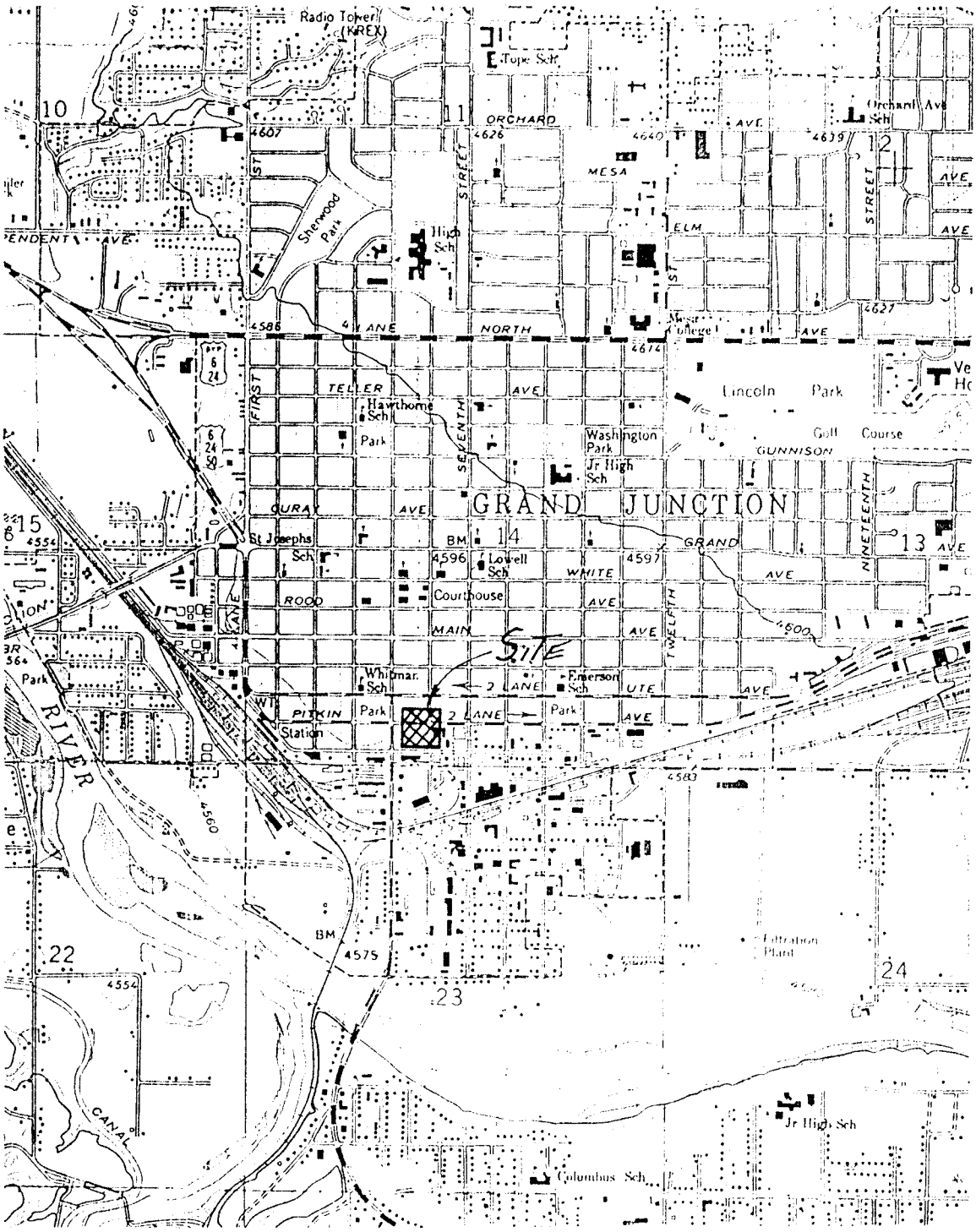
Inspections and Limitations:

The open foundation excavation must be inspected prior to the placing of forms and pouring of concrete to establish that adequate design bearing materials have been reached and that no debris, soft spots or areas of unusually low density are located within the foundation region. All fill placed below the foundations must be fully controlled and tested to ensure that adequate densification has occurred.

It is extremely important due to the nature of data obtained by the random sampling of such a heterogeneous material as soil that we be informed of any changes in the subsurface conditions observed during construction from those outlined in the body of this report. Construction personnel should be made familiar with the contents of this report and instructed to relate any differences immediately if

encountered. **Caution: Failure to follow these recommendations will void part or all of the recommendations contained in this report.**

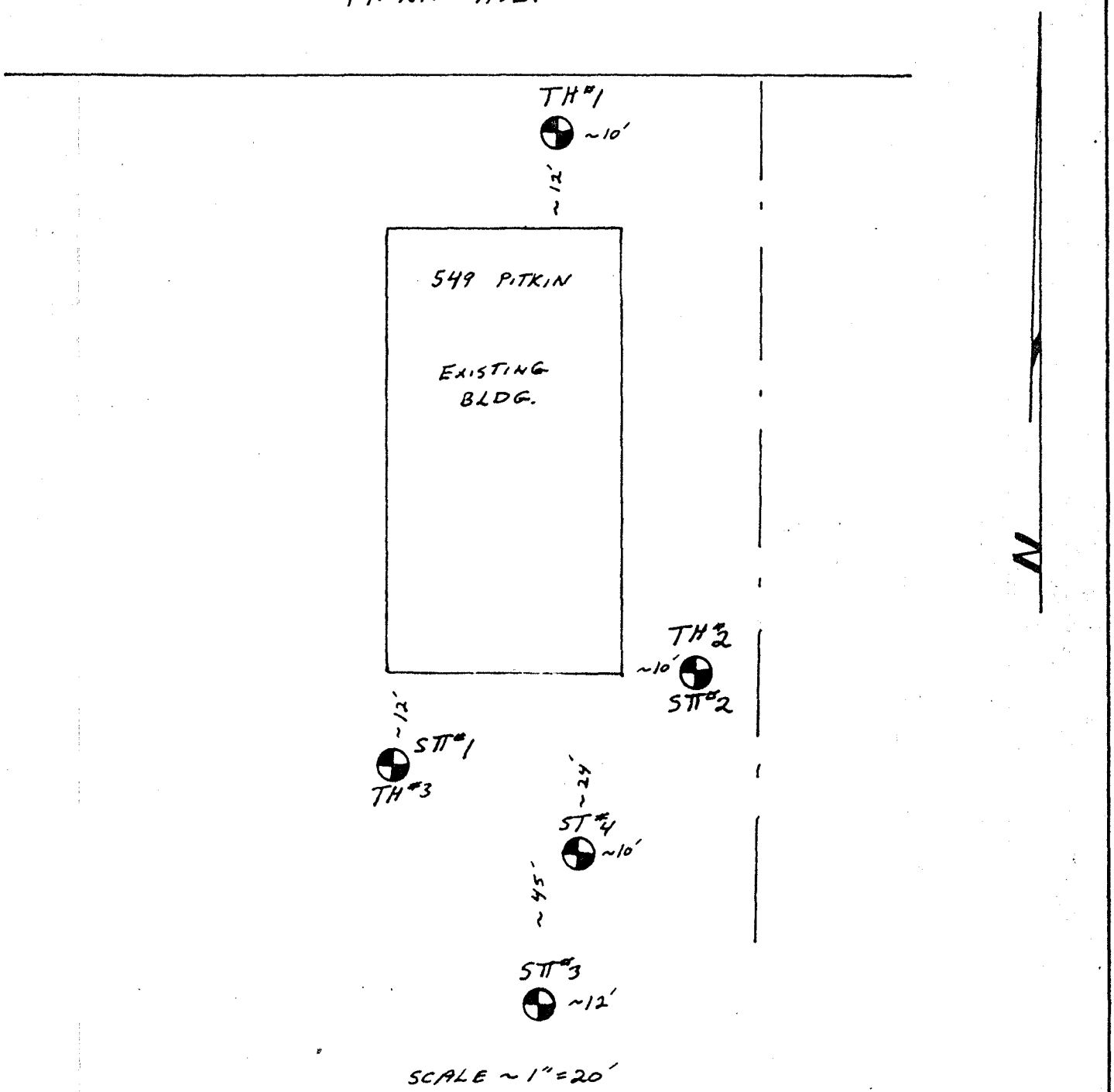
It is believed that pertinent points concerning the subsurface soils on this site have been covered in this report. If soil types and conditions other than those outlined herein are noted during construction on the site, these should be reported to Lincoln-DeVore so that changes in recommendations can be made, if necessary. If questions arise or further information is required, please feel free to contact Lincoln-DeVore at any time.



GENERAL SITE LOCATION DIAGRAM
LOW-RISK DETENTION FACILITY
549 PITKIN AVE.
GRAND JUNCTION, CO. LD-65363-J

LINCOLN DeVORE ENGINEERS GEOLOGISTS

COLORADO: COLORADO SPRINGS
GRAND JUNCTION, PUEBLO,
GLENWOOD SPRINGS
WYOMING: EVANSTON



TEST BORING LOCATION DIAGRAM
LOW-RISK DETENTION CENTER
GRAND JUNCTION, CO. LO-65363-J

LINCOLN DeVORE ENGINEERS GEOLOGISTS

COLORADO: COLORADO SPRINGS
GRAND JUNCTION, PUEBLO,
GLENWOOD SPRINGS
WYOMING: EVANSTON

SOILS DESCRIPTIONS:

SYMBOL	USCS	DESCRIPTION
		Topsoil
		Man-made Fill
	GW	Well-graded Gravel
	GP	Poorly-graded Gravel
	GM	Silty Gravel
	GC	Clayey Gravel
	SW	Well-graded Sand
	SP	Poorly-graded Sand
	SM	Silty Sand
	SC	Clayey Sand
	ML	Low-plasticity Silt
	CL	Low-plasticity Clay
	OL	Low-plasticity Organic Silt and Clay
	MH	High-plasticity Silt
	CH	High-plasticity Clay
	OH	High-plasticity Organic Clay
	Pt	Peat
	GW/GM	Well-graded Gravel, Silty
	GW/GC	Well-graded Gravel, Clayey
	GP/GM	Poorly-graded Gravel, Silty
	GP/GC	Poorly-graded Gravel, Clayey
	GM/GC	Silty Gravel, Clayey
	GC/GM	Clayey Gravel, Silty
	SW/SM	Well-graded Sand, Silty
	SW/SC	Well-graded Sand, Clayey
	SP/SM	Poorly-graded Sand, Silty
	SP/SC	Poorly-graded Sand, Clayey
	SM/SC	Silty Sand, Clayey
	SC/SM	Clayey Sand, Silty
	CL/ML	Silty Clay

ROCK DESCRIPTIONS:

SYMBOL	DESCRIPTION
	SEDIMENTARY ROCKS
	CONGLOMERATE
	SANDSTONE
	SILTSTONE
	SHALE
x x x x x x	CLAYSTONE
	COAL
	LIMESTONE
	DOLOMITE
	MARLSTONE
	GYPSUM
	Other Sedimentary Rocks
	IGNEOUS ROCKS
	GRANITIC ROCKS
+ + + + + +	DIORITIC ROCKS
	GABBRO
	RHYOLITE
	ANDESITE
	BASALT
	TUFF & ASH FLOWS
	BRECCIA & Other Volcanics
	Other Igneous Rocks
	METAMORPHIC ROCKS
	GNEISS
	SCHIST
	PHYLLITE
	SLATE
	METAQUARTZITE
	MARBLE
	HORNFELS
	SERPENTINE
	Other Metamorphic Rocks

SYMBOLS & NOTES:

SYMBOL	DESCRIPTION
	9/12 Standard penetration drive Numbers indicate 9 blows to drive the spoon 12" into ground.
	ST 2-1/2" Shelby thin wall sample
	W_o Natural Moisture Content
	W_x Weathered Material
Free water	Free water table
	γ^o Natural dry density
	T.B. – Disturbed Bulk Sample
	② Soil type related to samples in report
15' W_x / Form.	Top of formation
	Test Boring Location
	Test Pit Location
	Seismic or Resistivity Station. Lineation indicates approx. length & orientation of spread (S = Seismic, R = Resistivity)

Standard Penetration Drives are made by driving a standard 1.4" split spoon sampler into the ground by dropping a 140 lb. weight 30". ASTM test des. D-1586.

Samples may be bulk, standard split spoon (both disturbed) or 2-1/2" I.D. thin wall ("undisturbed") Shelby tube samples. See log for type.

The boring logs show subsurface conditions at the dates and locations shown, and it is not warranted that they are representative of subsurface conditions at other locations and times.

LINCOLN DeVORE TESTING LABORATORY

COLORADO: Colorado Springs, Pueblo, Glenwood Springs, Montrose, Gunnison, Grand Junction. – WYO. – Rock Springs

EXPLANATION OF BOREHOLE LOGS AND LOCATION DIAGRAMS

BORING NO. TH # 1

ELEVATION: 100 ′

DEPTH (FT)	SYMBOL	SAMPLE	DESCRIPTION		PENETRATION RESISTANCE	IN-SITU DENSITY (PCF)	MOISTURE CONTENT (%)
0			~~ROAD BASE GRAVEL~~ 6 INCHES				
			LEAN CLAY (CL)				
			SOFT low density moist to damp gray to dark brown fine grained	ST		97.0	14.0
5			frequent thin sand lenses				
10			soft low density high moisture	ST		96.3	14.4
			POORLY GRADED GRAVEL (GP)				
15			FREE WATER 8-12-87	CS	12/12		12.4
			firm well rounded coarse grained				
20				SPT	50/6		11.6
			Total Depth 20.0 ′ DRILL REFUSAL ON DENSE COBBLES				
25							
30							

ST=2.5′′DIA. THIN WALL TUBE
CS=1.875′′DIA. LINED SPOON
SPT=STANDARD SPLIT SPOON

LOG OF SUBSURFACE EXPLORATION

LINCOLN DeVORE ENGINEERS · GEOLOGISTS

COLORADO: COLORADO SPRINGS, GRAND JUNCTION, PUEBLO,

DATE 8-19-87

JOB NO. 65363-J

BORING NO. TH # 2

ELEVATION: 100 ′

DEPTH [FT]	SYMBOL	SAMPLE	DESCRIPTION		PENETRATION RESISTANCE	IN-SITU DENSITY [PCF]	MOISTURE CONTENT [%]
0			OPEN GRADED GRAVEL FILL loose low density low moisture very little fines 1/2 inch and finer gravel very loose hole sluffing				
5			unable to sample				
			LEAN CLAY (CL) soft fine grained low density moist to wet strong gasoline oder				11.9
			FREE WATER 8-12-87				
15			POORLY GRADED GRAVEL (GP) firm well rounded dense wet non plastic	CS	15/12	111.5	9.6
20				SPT	50/8		9.1
			Total Depth 20.0 ′ DRILL REFUSAL ON DENSE COBBLES				
25							
30							

ST=2.5′′DIA. THIN WALL TUBE
CS=1.875′′DIA. LINED SPOON
SPT=STANDARD SPLIT SPOON

LOG OF SUBSURFACE EXPLORATION

LINCOLN DeVORE ENGINEERS · GEOLOGISTS

COLORADO: COLORADO SPRINGS, GRAND JUNCTION, PUEBLO,

DATE 8-19-87

JOB NO. 65363-J

BORING NO. TH # 3

ELEVATION: 100 ′

DEPTH (FT)	SYMBOL	SAMPLE	DESCRIPTION		PENETRATION RESISTANCE	IN-SITU DENSITY (PCF)	MOISTURE CONTENT (%)
0			TRASH FILL engine parts battery cables contaminated with used oil				
			LEAN CLAY (CL) moist to very moist silty gray to dark brown	CS	12/12		25.2
5			frequent thin fine sand lenses strong gasoline oder				
10				CS	8/12		13.5
15			~~POORLY GRADED~~ GRAVEL *FREE WATER 8-12-87* (GP) medium dense firm wet well rounded non plastic	CS	30/12		12.2
20				SPT	15/12		
25			Total Depth 23.0 ′ *DRILL REFUSAL ON DENSE Cobbles*				
30							

ST=2.5′′DIA. THIN WALL TUBE
CS=1.875′′DIA. LINED SPOON
SPT=STANDARD SPLIT SPOON

LOG OF SUBSURFACE EXPLORATION

LINCOLN DeVORE ENGINEERS · GEOLOGISTS

COLORADO: COLORADO SPRINGS, GRAND JUNCTION, PUEBLO,

DATE 8-19-87

JOB NO. 65363-J

SUMMARY SHEET

Soil Sample LEAN CLAY (CL)

Test No. 65363-J

Location 549 PITKIN AVE., GJT, CO.
Boring No. TH # 1 Depth 9' (TYPICAL)
Sample No. SOIL TYPE NO. 1

Date 8-19-87

Test by S.D.

Natural Water Content (w)_____%
Specific Gravity (Gs)_____

In Place Density (γ_o)_____pcf

SIEVE ANALYSIS:

Sieve No.	% Passing
1 1/2"	
1"	
3/4"	
1/2"	
4	
10	
20	100
40	99.9
100	99.8
200	99.6

HYDROMETER ANALYSIS:

Grain size (mm)	%
0.02	82.5
0.005	72.4

Plastic Limit P.L. 18.3 %
Liquid Limit L. L. 42.3 %
Plasticity Index P.I. 24.0 %
Shrinkage Limit_____%
Flow Index_____
Shrinkage Ratio_____%
Volumetric Change_____%
Lineal Shrinkage_____%

MOISTURE DENSITY: ASTM METHOD

Optimum Moisture Content - w_o_____%
Maximum Dry Density - γ_d_____pcf
California Bearing Ratio (av)_____%
Swell:_____Days_____%
Swell against_____psf Wo gain_____%

BEARING:

Housel Penetrometer (av)_____psf
Unconfined Compression (qu)_____psf
Plate Bearing:_____psf
Inches Settlement_____
Consolidation % under psf

PERMEABILITY:

K (at 20°C)_____
Void Ratio_____

Sulfates 1000± ppm.

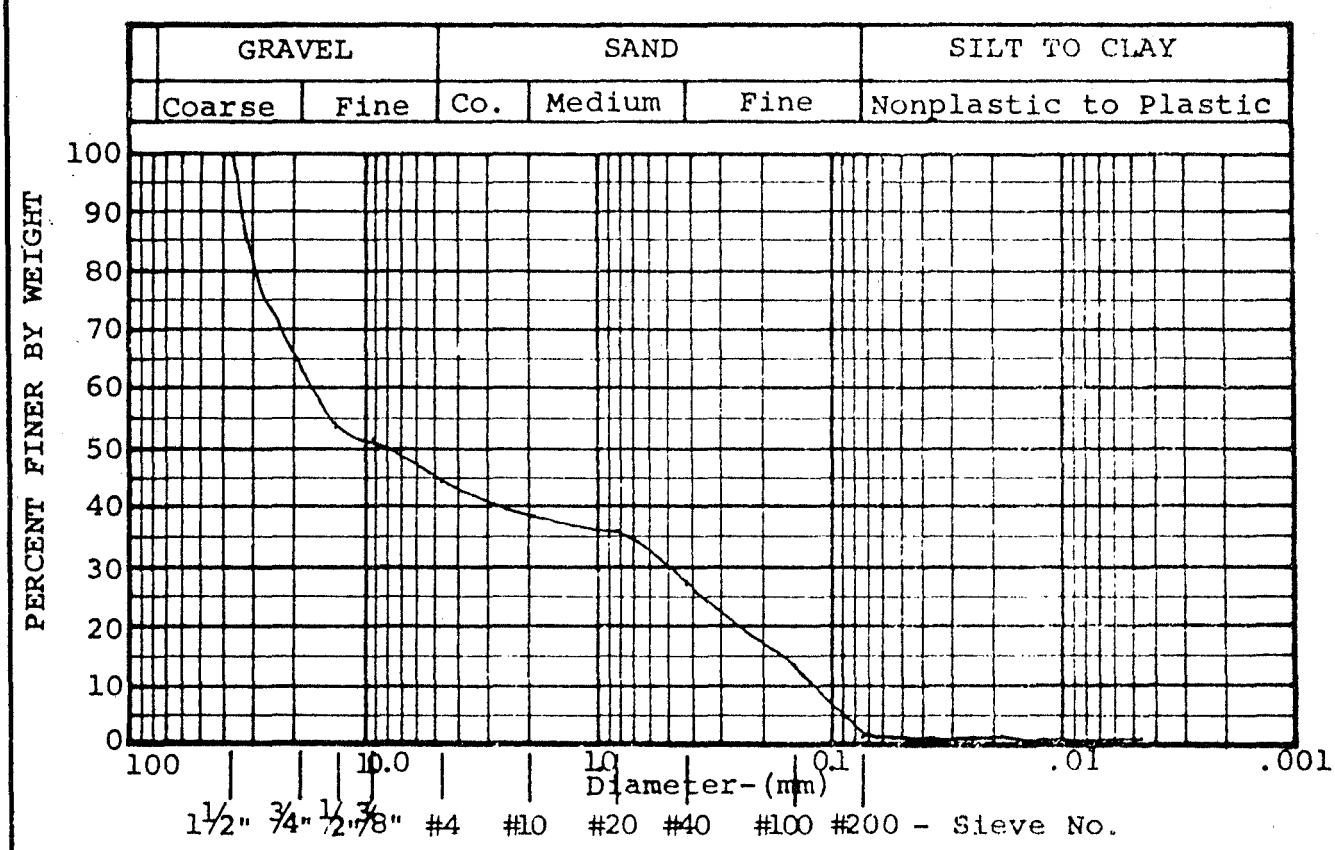
SOIL ANALYSIS

LINCOLN-DeVORE TESTING LABORATORY
COLORADO SPRINGS, COLORADO

Soil Sample POORLY GRADED GRAVEL (GP) Test No. 65363-J

Project 549 PITKIN AVE., GJT, CO. Date 8-19-87

Sample Location TH #2 @ 19' (TYPICAL) Test by S.D.



Sample No. SOIL TYPE NO. 2

Specific Gravity _____

Moisture Content _____

Effective Size ~.12 MM

Cu ~142

Cc ~ 0,12

Fineness Modulus _____

L.L. ____ % P.I. NP %

BEARING _____ psf

Sieve Size	% Passing
1 1/2"	100
1"	73.4
3/4"	63.5
1/2"	53.6
3/8"	51.7
4	44.5
10	38.5
20	36.0
40	27.0
100	13.9
200	1.3
.0200	1.0
.005	0.7

Sulfates 500 ± ppm

GRAIN SIZE ANALYSIS

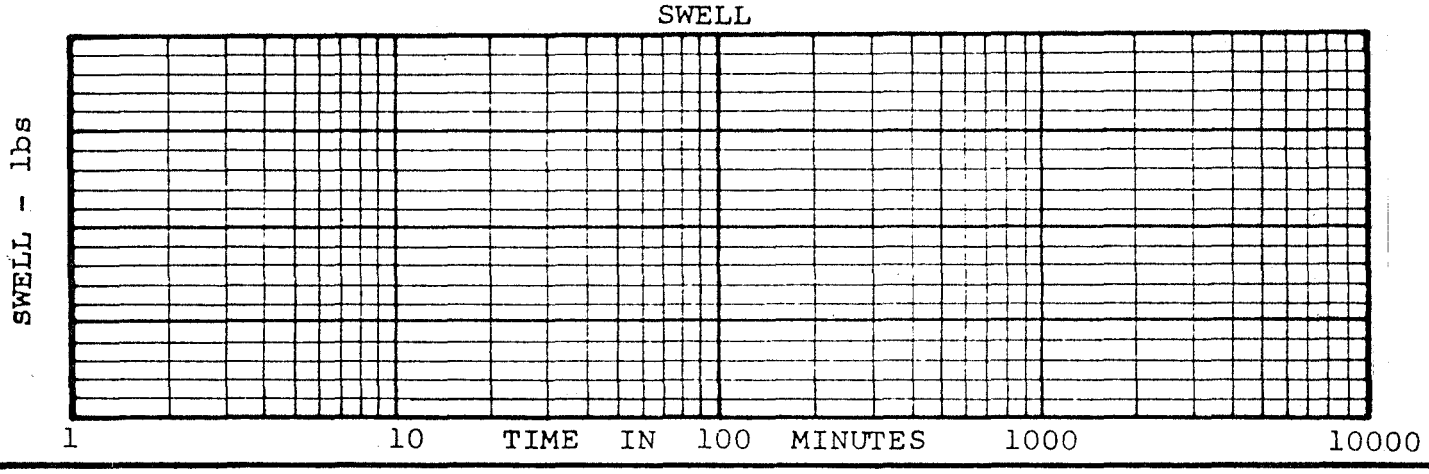
LINCOLN-DeVORE TESTING LABORATORY
COLORADO SPRINGS, COLORADO

SOIL SAMPLE LEAN CLAY (CL) Test No. 65363-J

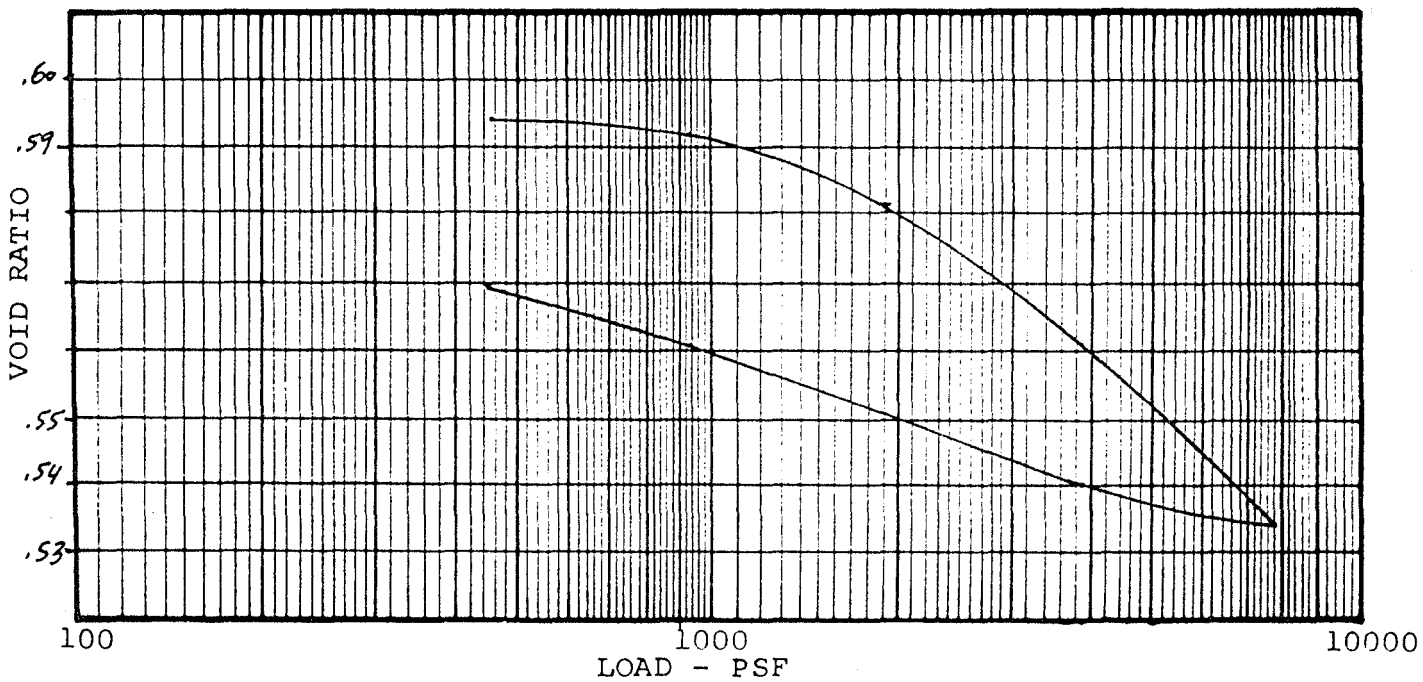
Project 549 PITKIN AVE., GJT, CO. Date 8-19-87

Sample Location TH # 1 @ 9' Test by CMB

SWELL



CONSOLIDATION



Sample Conditions	Initial	Maximum Load	Expanded
Dry Density	96.3 PCF	107.4 PCF	104.9 PCF
% Moisture	14.4%	20.2%	21.6%
% Saturation	53.5%	100%	100%
Void Ratio	.711	.534	.570

Specific Gravity 2.64

Maximum Load used 7290 lb/ft² Ring Number

Apparatus Volume 2.5" Ring 0.00284 cu. ft.

LOAD - CONSOLIDATION

LINCOLN-DeVORE TESTING LABORATORY
COLORADO SPRINGS, COLORADO

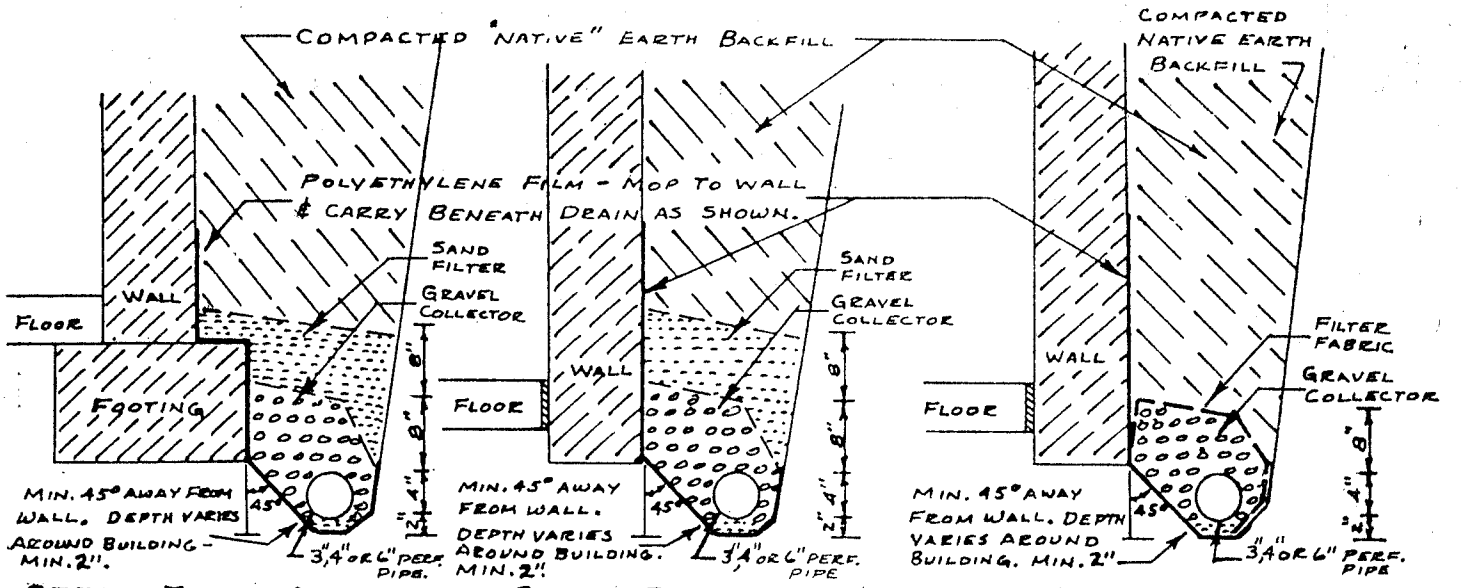
TEST HOLE NO.	SAMPLE DEPTH (FT.)	NAT. MOIST. Wo = %	NAT. DRY DENSITY (PCF)	PERCENT PASSING NO. 200 SEIVE	ATTERBERG LIMITS LIQUID LIMIT LL-%	ATTERBERG LIMITS PLASTIC LIMIT PL-%	ATTERBERG LIMITS PLAST. INDEX PI-%	UNCONFINED COMPRESSIVE STRENGTH (PSF)	SWELL TEST (PSF)	WATER SOLU. SULF. (PPM)	ASTM D-2487 SOIL CLASS.	SOIL TYPE NO.	DESCRIPTION AND NOTES
1	4	14.0	97.0									FILL	
1	9	14.4	96.3							1000	CL	1	
1	14	12.4									GP	2	
1	19	11.6									GP	2	
2	4	NO RECOVERY		POORLY GRADED			GRAVEL FILL		½" MINUS	N.P.		FILL	
2	9	11.9									CL	1	
2	14	9.6	111.5								GP	2	
2	19	9.1									GP	2	
3	4	25.2									CL	1	
3	9	13.5	94.7					Q_u = 1060 C_u = 530			CL	1	
3	14	12.2									GP	2	
3	19	NO RECOVERY		POORLY GRADED			GRAVEL ALLUVIUM				GP	2	

LABORATORY TEST RESULTS
SUMMARY OF SAMPLES

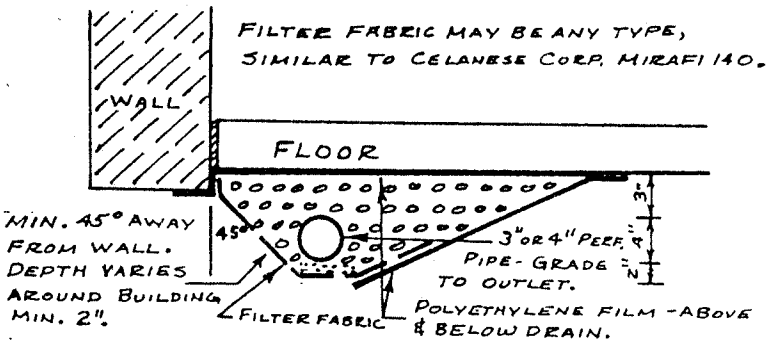
LINCOLN DeVORE ENGINEERS · GEOLOGISTS

COLORADO: COLORADO SPRINGS, GRAND JUNCTION, PUEBLO, GLENWOOD SPRINGS
WYOMING: EVANSTON

Job No. LD 65363-J
Rpt. Date 8-20-87



SPREAD FOOTING TYPE GRADE BEAM TYPE FILTER FABRIC ALTERNATE



UNDER-SLAB, INTERIOR TYPE

NOTES:

.Size of perforated pipe sand filter varies with amount of seepage expected. 4" diameter is most common.

.Gravel size depends on size of pipe perforations: 85% gravel > 2 x diameter of perforation.

.Sand filter must depend on native soil and must follow the Terzaghi-Vicksburg Criteria:

1) $\frac{15\%\ \text{filter}}{15\%\ \text{base}} = 4+$ 2) $\frac{15\%\ \text{filter}}{85\%\ \text{base}} < 4$ 3) $\frac{50\%\ \text{filter}}{50\%\ \text{base}} = 12\ \text{to}\ 58$

This is required for stability and length of filter life. The sand filter may be replaced with an approved filter fabric.

.All pipe to be perforated VCP, PVC or Orangeburg.

.4" flexible pipe may be used to depth of $4\frac{1}{2}$ feet, but must be carefully graded. 3" flexible pipe may be used to a depth of 7 feet and should be carefully graded.

.Rigid pipe only to be used below a depth of 7 feet below ground surface.

.All pipe to be laid at a minimum grade of 1.4% around building foundations.

.Outfall to be free, gravity outfall if at all possible. Use sump and pump only if no gravity outfall exists.

.Conditions can vary considerably, and each site may be variable as to quality of sand or gravel required. All sites should be inspected to determine the amount and quality of sand filter required, unless a filter fabric installation is used as shown.

TYPICAL SECTIONS
PERIMETER DRAIN & FRENCH DRAIN

LINCOLN DeVORE ENGINEERS-GEOLOGISTS
COLORADO: COLORADO SPRINGS, PUEBLO, GLENWOOD SPRINGS, GRAND JUNCTION, MONTROSE, WYOMING: ROCK SPRINGS

REVIEW SHEET SUMMARY

FILE NO. 4-88 TITLE HEADING Special Use Minimum Security Detention DUE DATE 1-22-88

ACTIVITY - PETITIONER - LOCATION - PHASE - ACRES Minimum Security Detention Center for Mesa County, Mike Kelly, project coordinator. Location: 549 Pitkin Ave.

PETITIONER ADDRESS 750 Main St.

ENGINEER

DATE REC.	AGENCY	COMMENTS
1-12-88	Police	No problems noted.
1-12-88	Mt. Bell	No objections.
1-14-88	Public Service	Gas: no objections. Electric: no objections.
1-20-88	Fire Dept.	Upon review of 549 Pitkin (Minimum Security Detention Center) the Grand Junction Fire Department requires adequate access, water & building construction to comply with Uniform Fire Code and lifesafety codes.
1-21-88	State Hwy Dept.	No additional access will be allowed to Pitkin Avenue (State Hwy I-70 Bypass).
1-28-88	Bldg. Dept.	State of Colorado licensed architect required to design and stamp construction documents. Engineer designed foundation required. City of Grand Junction licensed General Contractor required.
1-28-88	City Engineer	How and where will roof drainage be discharged?
1-15-88	Planning Dept.	As a special use in the Public Zone (PZ) the final decision for approval shall be made administratively by City Planning Department Staff. A major concern/question is parking. Where will staff for the existing and new wings be parking? The total expected staff numbers and parking details should be submitted as soon as possible. With the building configuration as shown, street noise from Pitkin Avenue will be funnelled into the designated "outdoor study area", and a box canyon affect will be created. Required setback (per Section 5-1-7:K-2 of the Zoning & Development Code) is 50 feet from the centerline of the right of way. As an 80 foot right of way, frontyard setback will be 10 feet behind the property line. No dimension is shown on the site plan for the new building; the existing building is shown as 9.9 feet behind the property line. The Zoning & Development Code requires that in the Public Zone (PZ), a minumum of 50% of the required (10 feet) front-yard setback shall be landscaped, i.e., 60 feet X 10 feet = 600 square feet X 50% = 300 square feet. Landscape design can be utilized to help buffer street noise for the study area if properly constructed. Any signage will require a separate sign permit. A final decision can made following written response to all of the above review agency comments. Following our review of the additional information provide by you, this proposal will be either approved or denied and you will be notified by means of a written letter.

Written
RESPONSE NECESSARY
by ASPC

Sent 1-29

OFFICE ACTION SHEET

SPECIAL USE

Acres 6250 ft

Units —

Density —

File No. #04 88

Zone I-1

Tax Parcel Number 2945-143-40-~~005~~ 039

Activity Minimum Security Detention Center

Phase Final

Common Location 549 Pitkin

Date Submitted ______ Date Mailed Out ______ Date Posted ______

______ day Review Period Return by ______ "X" we don't need it

Open Space Dedication (acreage) ______ Open Space Fee Required $ ______ Paid Receipt # ______

Recording Fee Required $ ______ Paid (Date) ______ Date Recorded ______

review agencies

Agency	Marked
Development Dept.	●
City Public Works	●
City Engineer	●
Transportation Engineer	○
City Parks/Recreation	○
City Fire Dept.	●
City Police Dept.	●
County Planning	○
County Engineer	○
County Health	○
County Parks/Recreation	○
Comprehensive Planning	○
Floodplain Administration	○
G.J. Dept. of Energy	○
Walker Field	○
School District	○
Irrigation	○
Drainage	○
Water (Ute, Clifton)	○
Sewer Dist. (FV, CGV, OM)	○
Mountain Bell	●
Public Service (2 sets)	●
State Highway Dept.	●
State Geological	○
State Health Dept.	○
GJPC (7 packets)	●
CIC (9 packets)	○
OTHER Building Dept.	●

7 agencies

totals

BOARDS / DATE

3/7/88 STAFF APPROVAL

STAFF

Kathy Portner

Mike Sutherland

244-1430

APPLICATION FEE REQUIREMENTS

$115 payable upon submittal to City of Grand Jct.

GRAND JUNCTION planning

Mesa County Sheriff's Office

Office (303) 244-3500
Jail (303) 244-3579
Civil (303) 244-3521

L. R. "Dick" Williams, Sheriff 655 Ute Avenue P.O. Box 20,000-5016 Grand Junction, Colorado 81502-5016

February 3, 1988

Planning Department
City of Grand Junction
250 No. 5th St.
Grand Jct. CO81501

Attn: Mike Sutherland Re: File no. 4-88

Dear Mike:

As soon as I have all of the specifications and design documents on the new low-risk facility I will provide you with the answers to the review sheet comments in total.

I can answer some of the concerns with the information we have now. In relation to the Fire Department, they have been involved with the building department in discussions concerning fire code and life safety as recently as January 20, 1988.

In answer to the State Hwy. Dept., there will be no additional need for access to Pitkin than is already available.

The Building Department has been involved with the review of documents from the architect/engineers involved in this project.

I will provide the roof drainage details for the City Engineer as soon as I have the final specs.

Concerning planning department questions, the following answers apply at present. On April 7, 1987, I met with Karl Metzner to discuss the process for the special use permit. At that time Karl and I discussed the amount, type and location of parking for this new building. It was mutually agreed upon at that meeting that 15 parking spots would be provided off-site at the Building Mart property to accomodate both visitors and staff. The new building will have five additional employees.

As to the box canyon noise effect, a barrier will be constructed at the north end of the two buildings between the two structures. This should alleviate some of the noise problems.

The new building will be built 15 feet west of the existing work release building and have the same outside footprint as the existing building. The building will be constructed exactly as far south of the property line as the existing building. If that truly is 9.9 feet rather than 10 feet, it will be built at 9.9 feet. This is in lieu of moving the existing building back 3 inches.

The landscaping will be an extension of the existing landscape which includes the planting of grass from the front of the building to the sidewalk and from the sidewalk to the curb along the entire property front.

Karl indicated he would like a sign on the property directing people to the parking. Other than that, we anticipate the need for no further signs.

The remaining question of roof drainage will be provided to you as soon as I have the information.

Thanks again for your time on this matter.

Sincerely,

Mike Kelly

Mike Kelly
Project Coordinator

City of Grand Junction, Colorado
81501-2668
250 North Fifth Street

February 17, 1988

Mr. John Elmer
Arix Corporation
760 Horizon Drive
Grand Junction, CO 81506-3983

Re: Mesa County Work Release Project

I have received and reviewed your plans for the proposed storm sewer extension in the alley west of 6th Street and south of Pitkin Avenue. My only comment is that the clean out at station 0+87 should be installed at a 45 degree angle and should be connected to the storm sewer pipe with 45 degree elbow fitting.

The contractor will be required to submit a traffic control plan to this office for approval prior to beginning construction of the storm sewer. Arrangements will also need to be made for compaction testing of the trench backfill.

Please let me know when storm sewer work is scheduled to begin.

Sincerely,

J. Don Newton

J. Don Newton
City Engineer

xc: City Planning Department
Walt Hoyt - City Inspector

JDN:skw

Grand Junction Planning Department
250 North Fifth Street
Grand Junction, Colorado 81501-2668
(303) 244-1430

March 7, 1988

Mr. Mike Kelly, Project Coordinator
Mesa County Sheriff's Office
P.O. Box 20,000-5016
Grand Junction, CO 81502-5016

Dear Mike:

Regarding our recent conversation about the Special Use permit for the minimum security detention center at 549 Pitkin Avenue, all technical concerns have been addressed.

Don Newton, City Engineer, stated that his office needs to be notified prior to work on the storm drainage connection as well as the trench work in the alleyway.

This letter shall serve as official notification of approval of the permit and a copy will be kept in the development file #4-88 for our records.

Your diligence in attending to the various issues and concerns of this proposal has been appreciated. Thank you and best of luck on the project.

Sincerely,

Michael E. Sutherland
City Development Planner

MES/tt

xc: File #4-88
Building Department