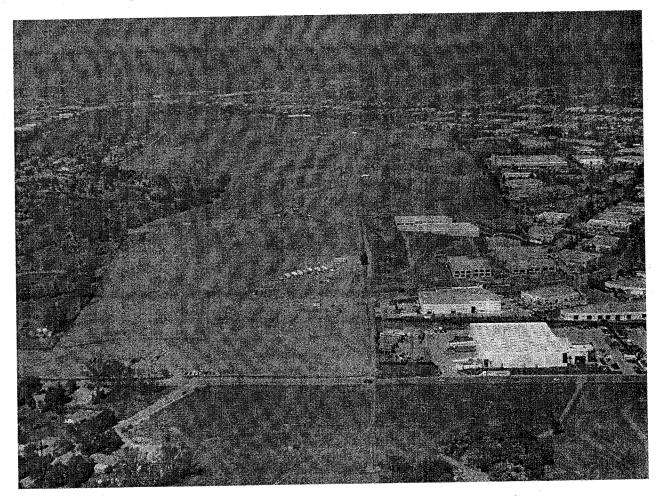
# PMC WEST (ERTC SITE)

PROPOSED PALOMAR MEDICAL CENTER WEST

# **GRADING REPORT**

# PALOMAR POMERADO HEALTH CENTER

SAN DIEGO, CALIFORNIA



URS

December 2005

## **OUTLINE**

#### COVER LETTER

#### **OUTLINE**

#### **REPORT**

#### **FIGURES**

Site Grading Location

Grading Plan (drawings from permit)

Actual Grading Plan (based on GEI description)

URS Recommended Grading Plan

#### **PHOTOS**

### **ATTACHMENTS**

Appendix A GEOCON Investigation of Raw Site

Appendix B GEI Grading Records

Appendix C City of Escondido Grading Standard

Appendix D URS Recommended Grading

Appendix E URS Site Soil Boring with Plan, Boring Log, Photos, attached

Geophysical Surveys (both GEOVision and Subsurface Survey)

Appendix F Re-grading Cost Estimate / Joe Hook

Appendix G Grading Permit

Appendix H Grading Plans (approved set 4/1/05)

Appendix I Site Improvement Plans

# REVIEW OF GRADING FILLS at the PROPOSED PALOMAR WEST MEDICAL CENTER SITE (also referred to as the ERTC Site)

The following summarizes a systematic review performed by URS Corporation at the request of Palomar Pomerado Health (PPH) in conducting a due diligence assessment of the site grading procedures employed by the developer, JRMC Real Estate, Inc. (JRMC) in preparing the site for future building development. It is our understanding that Palomar Pomerado Health (PPH) intends to construct a multi-story, multi-building hospital facility on the 40 acres shown in the site plan (Figures 1 and 2).

Our geotechnical investigation of the site has revealed that the fill materials placed in the 40 acres currently under acquisition by PPH for the Palomar West Medical Center were placed in a totally different way than was shown on the design drawings or in the recommended grading specifications. Instead of a soil fill with widely spaced rock boulders spread throughout, the contractor has used a rock fill with thin layers of soil on top of 4' thick layers of almost pure rock. The resulting fill material is highly susceptible to water penetration and settlement resulting in both vertical differential movement of the site as well as potential horizontal movement.

The following report provides insight into the differences between what has been shown on the plans and approved by the City of Escondido versus what was actually constructed in the field. It also identifies the remedial measure that would be required to correct the rock fill areas for use in future hospital construction.

#### **BACKGROUND**

JRMC hired a geotechnical firm to perform the necessary geology and soil studies prior to grading the site. This work was done by GEOCON Inc. and is documented in their report which is attached as Appendix A of this report. Figure 3 illustrates the grading concept that GEOCON developed for fill soils at the hospital site. This concept utilizes a series of windrows containing rock boulders that are placed in a well separated fashion to permit fine grained soils to be compacted around the rock. The resulting fill is a predominately well compacted fine grain soil with a few large rocks up to 4' in diameter that are all placed 10' or more below the ground surface.

During the early stages of site review for acquisition by PPH, about late May 2004, URS Corporation was called in to review the grading plans and specifications prepared by GEOCON to see whether they would comply with the requirements that would be imposed by the State hospital licensing agency known as OSHPD (Office of Statewide Health Planning and Development). As part of this review process we had informal discussions with the state agency that OSHPD turns to for assessing geologic and foundation requirements for hospital buildings, California Geological Survey. We spoke directly with Dr. Robert Sydnor, one of the chief geologists in the department to determine the grading approach for a rock site with fill materials that might contain rock boulders. Based on our own experience and his recommendations we modified the GEOCON grading plan and specifications as shown in Figures 4 and 5 and documented in a memorandum in Appendix D.

PPH presented our modified grading plan to JRMC. The grading contractor estimated that implementing the modified URS recommendations would add \$1 to \$1½ Million to

his initial grading costs for the 40 acre site based on the original GEOCON recommendations.

Our recommendations were not incorporated in the design or construction since the property at that time was not in escrow with PPH.

JRMC then hired a new firm, Geotechnical Exploration, Inc. (GEI) to monitor and test the grading activities at the site. Their work is reported in Appendix B. The grading contractor was Fischer Sand and Gravel who followed the plans and specifications prepared by the civil engineering firm, Project Design Consultants. These plans are enclosed in Appendix H. The City of Escondido issued a grading permit for the construction on January 23, 2004, to Diamond Lane Contractor, Inc. (see Appendix G). The plans went through a cycle of evolution to accommodate the cut and fill areas that were erroneously computed by Project Design Consultants. They had underestimated the amount of fine fill materials that would be available for the site and as a result had to cut the rock portion of the site down to a lower elevation than originally planned in order to obtain sufficient materials to fill the site. This resulted in a large amount of rock material in fairly large sizes (up to 4' in diameter) that were placed at the site in a side-by-side fashion as illustrated in Figure 8 to form a rock fill. The design drawings however, remained the same as if the site was to be graded with fine grained soil and widely spaced boulders placed within it, as shown in Figure 6. This is the figure copied from page 2 in the design grading plans in Appendix H. This figure represents the design plans submitted to the City of Escondido. In fact the City of Escondido grading standards, Figure 7, are virtually identical to the drawing in Figure 6. Figure 7 and the Escondido City standards are attached in Appendix C for reference.

During the grading process at the proposed hospital site, GEI sent technicians out on a regular basis to monitor and test the placement of the fill materials. Photographs were taken which are included in Appendix B that show the actual rock fill construction.

Large boulders and rock were placed side-by-side in 4' thick layers as shown, in Figure 8. Then fine grained fill material was placed on top and watered down to force it in between the rocks. Then another layer of fill material about 2' thick was placed on top of the rock and compacted with the bulldozers and heavy equipment. The rock density was not tested at all, not even to the standards specified by GEOCON for a rock fill (Field Plate Bearing Test, ASTM D1196-93). GEI modified the test procedure as described in their report in Appendix B. Only the soil fill layer between the rock layers was tested for its density. Since the rock layers represented 80% of the graded fill height and the soil layers less than 20%, the soil fill compaction tests are meaningless when attempting to predict the structural behavior in the layers between the rock of a 50' high rock fill embankment.

In April 2005 URS Corporation conducted a preliminary geotechnical investigation of the site with four borings, three of which went into the fill materials. The rock fills were found to be very porous and had large voids which complicated the drilling process extensively. These voids soaked up the drilling mud that was placed in the holes to hold them open while we monitored the dynamic properties of the site. This investigation by URS Corporation and our geophysical consultant, GEOVision, is documented in Appendix F.

It was not until URS Corporation performed the preliminary geotechnical investigation on the site grading that the differences in the grading procedures (from those shown on the plans) became evident. In May 2005, after we encountered serious drilling problems on the site, we interviewed GEI, before they prepared the report in Appendix B, to determine what had transpired during the site grading. They provided us with a full record of the procedures that were followed in grading the site and their methodology for monitoring. They also provided us with photographs from their monitoring of the grading which we have added to their report in Appendix B.

# CONSEQUENCES OF ROCK FILLS

For buildings constructed on the cut rock portion of the site we see no significant problem in terms of using that portion for hospital construction. However, for the portion of the site where rock fill materials have been placed, there will be significant complication in founding hospital buildings on this material.

The problems associated with this rock fill material are as follows: Due to the large number of voids surrounding and under the boulders, and the inability to compact the finer materials between the boulders, there is a high probability that under normal weather conditions, the fill will develop vertical settlement as the finer materials migrate into the voids due to water percolating down through the voids. Under earthquake conditions more fine materials will be shaken down from the soil fills above the rock layer to fill the voids. This would be accelerated by the re-arrangement of the rock layers during the shaking. Lateral instability is anticipated at the interface between the boulders and the natural rock slopes of the site due to the missing compacted soil confinement around the rock boulders. Furthermore, a series of benches should have been placed between the rock interface and the boulder fill. According to GEI, the cut rock benches shown on the plans were never used. Instead, the rock fill was placed on the slopes of the site with a 2 to 5% downhill slope.

For the cut areas in natural rock, we can readily predict what the design ground motion conditions could be in a strong earthquake. However, for this rock fill material loosely constrained by smaller gravel and fine sands, there is no known method for predicting its seismic performance, ground motion characteristics or stability under ground shaking. We would be hard pressed to place our engineering seal of approval on a report recommending construction of a hospital on these rock fill materials at the ERTC site.

Under these conditions, it will be difficult and probably impossible for us to convince OSHPD to accept the rock fill areas as a viable hospital location. Even GEI, the geotechnical engineer responsible for the grading inspection admits the site has been prepared for industrial purposes, where much less stringent requirements apply, not for high tech facilities such as a hospital.

For buildings constructed on a cut and fill site supported partially on natural rock and partially on a soil fill, a foundation system might normally include piles or caissons socketed into the rock to support the structure over the fill. In this case, it is not only going to be very difficult to core and place the caissons in the fill materials but there is no assurance that the fills themselves will remain in position during the life of the slope and least of all during an earthquake. The lateral loads from down-drag and seismic motion could easily exceed any conceived design loads developed by the geotechnical engineer in collaboration with the structural engineer. Thus the fill area of the site is extremely problematic for adapting to the types of requirements that OSHPD would impose to assure structural safety.

# ESTIMATED FILL REMEDIATION COSTS

Figure 9 depicts the overlay of the existing site elevation contours and the finished grading plan contours presented to the City of Escondido in the permit set of drawings. The computed volume of rock and soil fills is on the order of 1.4 Million cubic yards.

The most rational option for remediating the grading conditions so the entire site may be used for hospital construction would be to remove and replace the rock fill with fine fill materials using the ground-up boulders in the process. In this case the boulders would have to be ground to a very fine material since the city is not permitting fill materials to be trucked onto the site. It might involve cutting the rock surface down even further in order to provide material to fill the void spaces that now exist. The complexity of such a process is further complicated by the limited space to work around since the materials on the site cannot be trucked off during the removal, excavation and replacement cycle.

The second option would be to fill the voids between the rocks using a pressure grout procedure. This approach has been used historically and would require a fairly sophisticated process. We have estimated the costs for both of these options in Appendix F. The option of removing, grinding up the rock materials to fine materials and replacing them in a properly compacted process over the site has been estimated at \$30 Million. To grout the materials in place and stabilize the site is estimated anywhere from \$25 to \$50 Million, depending on conditions encountered. These are significant costs to achieve a usable site and may well exceed the asking price of the property.

#### **SUMMARY**

We have incorporated all of the documents referred to in the contract between PPH and JRMC in Article 16 of the Seller's obligation. These include the grading permit (see Appendix G), the grading plans in the final form approved April 1, 2005 after 90% of the grading on the site had been completed (see Appendix H) and the Site Improvement Plans P-2398 dated December 29, 2004 (see Appendix I).

Based on the geotechnical and geophysical test programs that URS Corporation has conducted at the proposed Palomar West Medical Center (ERTC) site and the report by GEI on the grading that they monitored, it is evident that a rock fill was used. This is contrary to the design grading plans prepared by the civil engineers, Project Design Consultants; contrary to the City of Escondido's standard for grading; contrary to GEOCON's recommended grading specifications for soil and soil rock fill and contrary to URS's understanding of the proposed grading plans for the site.

The rock fills as constructed represent a major maintenance cost to prevent settlement from water leaching the fine grain surface fills down through the rock voids. They also represent a high added foundation cost for any building constructed on rock fill; and since only the cut rock areas maybe counted on as acceptable, the fills limit the site areas where hospital buildings may be safely constructed under the OSHPD permitting process.

# **APPENDIX B**

GEI Report

July 27, 2005

and Site Grading Photos

# REPORT OF GRADING OBSERVATION, SOIL TESTING AND GEOTECHNICAL ENGINEERING

Parcel No. 2, West Part of Parcel 3, and Parcel 7
Citracado Parkway, between Vineyard Avenue
and Harmony Grove
Escondido, California

**JOB NO. 04-8585** 27 July 2005

Prepared for:

JRMC Real Estate, Inc. Attn: Mr. Joe Fogarty





# GEOTECHNICAL EXPLORATION, INC.

SOIL & FOUNDATION ENGINEERING • GROUNDWATER HAZARDOUS MATERIALS MANAGEMENT • ENGINEERING GEOLOGY

27 July 2005

JRMC Real Estate, Inc. 1040 S. Andreasen Drive, Suite 200

Escondido, CA 92029 Attn: Mr. Joe Fogarty Job No. 04-8585

Subject:

Report of Grading Observation, Soil Testing and

**Geotechnical Engineering** 

Parcel 2, West Parcel 3, and Parcel 7

West of Citracado Parkway

Between Vineyard Avenue and Harmony Grove

Escondido, California

Dear Mr. Fogarty:

As requested, *Geotechnical Exploration, Inc.*, hereby submits the following report summarizing our work and test results, as well as our conclusions and recommendations concerning the subject project. Representatives of our firm observed the recent rough grading operation and tested the fill soils that were placed and compacted during the construction of the embankment fill, corresponding to Parcel 2, west of Parcel 3, and Parcel 7 of the subdivision, on the west side of Citracado Parkway.

The grading described herein consisted of removing topsoils and placing and compacting up to approximately 50 feet of rock fill and fill soil to achieve the grades shown in the ER&TC Grading Plan, where new buildings for Palomar Medical Center West will be built. The grading was observed and/or tested between March 28, and December 15, 2004. We understand that additional uncontrolled and uncompacted fill (2 to 3 feet thick) has been placed in some areas of the parcels. Before construction or additional fill placement, this uncompacted fill will need removal and proper recompaction.

## SCOPE OF WORK

The scope of work of our services included:

- Observations during rough grading of the site.
- Performing field density tests in the placed and compacted fill.
- Performing laboratory tests on representative samples of the fill material.
- 4. Providing professional opinions, conclusions, and recommendations regarding the observed grading and the pending work.

# **GENERAL SITE INFORMATION**

The portion of the ER&TC property where the Palomar Medical Center West will be built is located west of Citracado Parkway, in an area of approximately 67 acres. This portion of the property is located on the west side of Citracado Parkway, between Vineyard Avenue and Harmony Grove, in the City of Escondido, California, and borders to the north with residential properties at a lower elevation, and to the northeast with Vineyard Avenue (see Figure No. I). The Palomar Medical Center West property is bordered on the west by a fill slope and developed residential properties abuting the west slope toe; on the east by Citracado Parkway extension currently under construction; and to the south by undeveloped land part of the ER&TC Subdivision (see Figure No. II).

Prior to this grading, this part of the subdivision consisted of hillside sloping to the east, west and south, with grades ranging from approximately 880 feet above mean sea level (AMSL) between Parcels 2 and 3, and 701 feet AMSL near the south side



of the property. The rough graded building areas have been left draining to the south and southeast, with a typical gradient of 3 percent. Fill slopes up to 50 feet thick (approximately), were built along the south side of the subject portion of the property. Other slopes, with lower elevations, surround the Palomar Medical Center West property. We assume that elevations shown in the grading plan are very close to the elevations actually achieved during rough grading of these parcels.

There were no existing structures on the site prior to this grading. Existing vegetation prior to grading consisted mostly of native bushes and weeds.

The subject parcels of the subdivision, in general, have been prepared to receive new buildings and improvements (when fill placed after December 15, 2004, is removed and recompacted). It is our understanding that the buildings will be constructed in conformance with the California Building Code, utilizing conventional-type foundations and building materials. A Plot Plan illustrating the approximate location of all our tests taken throughout the grading operation for this part of the subdivision is enclosed as Figure No. II.

Work that remains to be completed at the site and that will require further observations and/or testing include grading observations and soil testing of additional rough grading work, evaluation of soil in foundation excavation bottoms, testing of any retaining wall backfill, trench backfill, final sub-grade and base preparation of areas to receive exterior rigid improvements.

# FIELD OBSERVATIONS

Periodic tests and continued observations were provided by a representative of **Geotechnical Exploration**, **Inc**. to check the grading contractor's (Fischer Sand and Gravel) general compliance with the grading specifications. The presence of



our field representative at the site was to provide to the client a continuing source of professional advice, opinions, and recommendations based upon the field representative's observations of the contractor's work, and did not include any superintending, supervision, or direction of the actual work of the contractor or the contractor's workers.

The grading operation was observed to be performed in the following general manner:

- 1. Prior to placing any compacted fill, the areas to be graded were cleared of surface trash, miscellaneous debris, and/or vegetation, and hauled off-site.
- Uncompacted fills, soft or disturbed materials, and/or unsuitable organic or compressible soils were removed to expose firm natural ground. Areas that received fill had the existing surface soils removed to a depth of at least 3 feet below existing grade and to approximately 5 feet beyond the toe of the proposed fill slopes, where feasible.
- 3. The exposed, firm ground surface was scarified at least 6 inches and uniformly recompacted prior to placement of fill where feasible.
- 4. Areas to receive compacted fill were, in general, observed and evaluated by our field representative prior to placing compacted fill.
- 5. Soils approved for use in the compacted fill were placed in horizontal layers not exceeding approximately 8 to 10 inches in loose thickness. Oversize material was placed in general as follows. Rocks up to 4 feet in diameter were placed at least 15 feet away from the face of fill slopes. These rocks were placed in the fill areas from the bottom of the fill up to -10 feet below



rough grade elevation. Rocks up to 2 feet in diameter were placed between -5 and -10 feet below final pad subgrade elevation. Rocks up to 6 inches in diameter were placed within the upper 5 feet of fill placed on the parcel. Occasional rocks up to 1 foot in diameter were placed in the upper 5 feet of fill, but the largest portion of rock within the upper 5 feet of fill is up to 6 inches in diameter. Some portions of the site were not provided with a minimum 5 feet of fill, particularly at the north end of the project. The fill placed in the rock fill areas was flooded so that any voids between rocks, in areas where compaction equipment could not reach, were filled with washed down soils. Heavy compaction equipment was rolled on top of every rock lift so to ensure that the rocks were settled and properly compacted before the next lift was added. The outer 15 feet of the slope fill face were compacted with conventional heavyweight grading equipment, and placed with standard The outer fill consisted primarily of soils with no grading procedures. Most of the cut areas on Parcels 2 and 3 were not oversize material. undercut 5 feet below the new pad grades. The cut portion of the pad was left with loose layer of soil varying from 1 to 3 feet after blasting. Keyways were dug for all fill slope areas. Benches were excavated on sloping ground with slope ratios of 5.0:1.0 (horizontal to vertical) or steeper.

- 6. Fill material was watered or dried at or near optimum moisture content, and mixed prior to compaction.
- 7. The soils utilized in the grading operation were from on-site and imported and consisted primarily of silty sands or sandy silts with varying content of gravel, and rock of size ranging from 3 inches to 4 feet. In general, the fill placed on the property can be considered more as a rock fill than fill soil with a few rocks.



- 8. Fill material and fill matrix materials in rocky fills were tested at specific test locations and found to be compacted to at least 90 percent of Maximum Dry Density. Areas with failing test results were pointed out to the contractor for corrective work. Those areas were approved after corrective compaction work was performed and satisfactory test results were obtained. When the rock content was too high for field density testing, rock fill compaction was considered acceptable after sufficient compaction effort had been provided by the heavy grading equipment and a non-yielding surface was observed.
- Compaction was achieved by drying or wetting the soil, mixing it and rolling it
  with heavy construction equipment such as a paddle wheel scrapers, self
  propelled contractors, track mounted dozers, and water trucks.
- 10. Field density tests were taken at the approximate locations shown on the plot plan (Figure No. II).
- 11. Subdrains were placed in canyon or ravine areas as indicated in plans provided to our firm (see plot plan for locations of subdrains). Most of the subdrain ends are buried and need to be tied to permanent drainage facilities.

## <u>TESTS</u>

Field density tests were performed in accordance with ASTM D2922. Maximum density determinations were performed in accordance with ASTM D1557. The relative compaction results, as summarized on Figure No. III, are the ratios of the field densities to the laboratory Maximum Dry Densities, expressed as percentages.



# CONCLUSIONS AND RECOMMENDATIONS

The following conclusions and general recommendations are based upon our analysis of all data available from the testing of the soils compacted on this site. Our observations of the grading operation (while in progress), our field and laboratory testing of the typical bearing soils, and our general knowledge and experience with the natural-ground soils and recompacted fill soils on this site were utilized in conducting our services.

# A. General Grading

- The soils utilized in the grading operation were from existing on-site (subdivision) soils and rocks that were removed, placed, and re-compacted. The soils consisted primarily of silty sands, sandy silts, and blasted rock in different sizes and mixed with on-site regular soils in different percentages. Soils of this type are considered very low to low expansive, as measured per simple visual inspection.
- 2. During the grading operation, the natural-ground firm soils or bedrock were exposed (where necessary) and properly prepared to receive the fill soils. The fill soils were placed, watered, compacted, and then tested at specific test locations, and were found to be compacted at the tested locations to at least 90 percent of Maximum Dry Density, in accordance with the requirements of the City of Escondido. The maximum depth of fills placed on this site at the time of the grading operation monitored by this firm was not in excess of 50 feet (approximately) in vertical thickness.
- 3. Any surplus, loose, stockpiled soils remaining at the property should be removed and hauled off the site.



4. Grading work to be completed and performed under observations and testing of a geotechnical firm include any additional grading operation, evaluation of foundation excavation bottoms, testing of any retaining wall backfill, trench backfill, and finish subgrade and base preparation in areas to receive pavement. Undocumented and uncompacted fill material placed after December 15, 2004, will require removal and recompaction.

# B. Foundations and Slabs On-Grade

- 5. Recommendations for the foundations, slabs on grade, and exterior improvements shall be those provided by the geotechnical consultant of record for the subject parcels. As a minimum, we would recommend that the continuous foundations and spread footings extend a minimum depth of 18 inches into the firm natural ground or properly compacted fill, and have a minimum width of 12 inches. The continuous foundations shall be reinforced with at least four No. 4 steel bars; two bars shall be located near the top of the foundations and two bars 3 inches from the bottom.
- 6. Prior to pouring concrete for foundations, and prior to placement of floor slab base sections, the geotechnical engineer shall verify the adequacy of the soils at the bottom of foundation excavations, and also on the slab subgrade soils.
- Concrete floor slabs shall be built as recommended in the structural plans and should also comply with the recommendations prepared by the geotechnical consultant on the Palomar Medical Center West Project.
- 8. It is recommended that all nonstructural concrete slabs (such as patios, sidewalks, etc.), be founded on at least 12 inches of properly compacted onsite subgrade soils on properly compacted fills. The slabs shall be provided



with proper shrinkage joints (sawcuts) and spaced no farther than 15 feet or the width of the slab, whichever is less, and at re-entrant corners. The sawcuts should be performed no later than 12 hours after pouring, or as soon as the concrete is set. Sawcuts should be deepened to at least one-quarter of the thickness of the slab.

9. All concrete (flatwork) slabs or rigid improvements should be built on properly compacted and approved subgrade and/or base material. The geotechnical consultant shall verify that subgrade soils to receive rigid improvements have the proper compaction within 48 hours before concrete placement.

# C. <u>Foundation Design Parameters</u>

The recommended allowable soil bearing capacity of the properly compacted 10. fill soils placed on the site is 2,000 pounds per square foot. recommended allowable soil bearing capacity may be increased 800 psf for each additional foot in depth, and 400 psf for each additional foot in width. The total bearing capacity shall not exceed 5,000 psf. This soil-bearing value may be increased one-third for design analysis that includes wind or seismic loads. Additionally, these bearing capacities may be utilized in the design of foundations and footings of the proposed structures when founded a minimum of 18 inches into the properly compacted soils. For on-site conditions, it is expected that the maximum settlement will not exceed 21/2 inches in the deeper fill area (50 feet), and the maximum differential angular rotation across the width will not exceed 1/240. We anticipate that most of the settlement will occur prior to construction on the pads. recommended that at least 4 soil settlement monuments be installed at the



- 11. The passive earth pressure of the encountered natural-ground soils and well-compacted fill soils (to be used for design of building foundations and footings to resist the lateral forces) may be based on an Equivalent Fluid Weight of 300 pounds per cubic foot. This passive earth pressure shall only be considered valid for design if the ground adjacent to the foundation structure is essentially level for a distance of at least three times the total depth of the foundation, the soil is properly compacted fill or natural dense material, and the concrete is poured tight against the walls of the excavation.
- 12. A Coefficient of Friction of 0.40 times the dead load may be used to calculate the total friction force between the bearing soils and the bottom of concrete wall foundations, or structure foundations, or floor slabs.

# D. Retaining Wall Design Parameters

13. The active earth pressure (to be utilized in design of cantilever walls, etc.) may be based on an Equivalent Fluid Weight of 38 pounds per cubic foot (for level backfill only and nonexpansive or low-expansive, on-site native soils).

In the event that the cantilever retaining wall is surcharged by a 2.0:1.0 sloping backfill, the design active earth pressure shall be based on an equivalent fluid weight of 52 pcf. In the event that a retaining wall is to be designed for a restrained condition, a uniform pressure equal to 8xH (eight times the total height of retained soil, considered in pounds per square foot) shall be considered as acting everywhere on the back of the wall, in addition to the design Equivalent Fluid Weight.

The design pressures presented above are based on utilization of an uncontrolled mixture of very low expansive and low-expansive soil native to



the site used in backfill operations. No material including rocks larger than 3 inches may be used as backfill behind retaining walls. Additional surcharge pressures to be considered in the wall design include any loads applied within the failure block retained by the wall.

# E. Cut and Fill Slopes

- 14. Natural-ground cut slopes of maximum inclinations of 2.0 horizontal to 1.0 vertical, and compacted fill slopes of maximum inclinations of 2.0 horizontal to 1.0 vertical up to 90 feet in height, shall be stable and free from deepseated failures for materials native to the site and utilized in compacted fills. Implementation of proper drainage, erosion control, and regular landscape maintenance, including checking irrigation pipe leaks, will help maintain the stability of the fill slopes.
- 15. Although the compacted fill soils have been verified at the tested locations to a relative compaction of 90 percent of Maximum Dry Density or better, the compacted fill soils that occur within a horizontal distance of 20 feet from the slope face on fill slopes may posses decreased lateral stability due to anticipated lateral (spreading) deformation of a compacted fill mass. If not properly founded, the proposed structures and associated improvements (such as walls, fences, patios, sidewalks, driveways, asphalt paving, etc.) that are located within 20 feet of the face of compacted fill slopes could suffer differential movement as a result of the decreased lateral stability of these soils. Other secondary structures, such as pavement, curbs, exterior walls, etc. may undergo separations or cracking due to the anticipated lateral spreading of areas close to slope face and slope top.



The foundations and footings of the proposed structures, fence posts, walls, etc., when founded at least 20 feet and farther away from the top of compacted fill slopes, may be of standard design in conformance with the recommended soil value. If proposed foundations and footings are located closer than 20 feet inside the top of compacted fill slopes, they should be deepened to at least 1½ feet below a line beginning at a point 20 feet horizontally inside the fill slopes, and projected outward and downward, parallel to the face of the fill slopes. Improvements built within 20 feet from the slope top may be provided with dowels and/or slip joints or insulation joints that are anticipated to open up when soil movement occurs. Separations of up to 2 inches shall be anticipated and planned to occur in improvements built in areas within 20 feet from the top of slopes. Some maintenance and/or repair of exterior improvements built within 20 feet of slope faces should be anticipated within the first 10 years after construction of the project.

16. It is recommended that all compacted fill slopes and natural cut slopes be planted with an erosion-resistant plant, in conformance with the requirements of the City of Escondido.

# F. <u>Drainage</u>

17. Adequate measures shall be taken to properly finish-grade the site after the structure and other improvements are in place. Drainage waters from this site and adjacent properties are to be directed away from foundations, floor slabs, footings, and slopes, onto the natural drainage direction for this area or into properly designed and approved drainage facilities. Roof gutters and downspouts should be installed on all roofed structures, and the runoff directed away from the foundations via concrete swales, paved surface, or



closed drainage lines. Proper subsurface and surface drainage will help minimize the potential for waters to seek the level of the bearing soils under the foundations, footings, and floor slabs. Failure to observe this recommendation could result in uplift or undermining and differential settlement of the structure or other improvements on the site.

- 18. Proper subdrains shall be installed behind and at the bottom of any retaining and restrained retaining walls, in addition to proper waterproofing and continuous backdrain (such as geodrain board) of the back of the walls. The drainage of said subdrains shall be directed to the designed drainage for the project or the natural drainage for the area.
- 19. It should be noted that changes of surface and subsurface hydrologic conditions, plus irrigation of landscaping or significant increases in rainfall over the "accepted average-annual" rainfall for San Diego County in past years, may result in the appearance of minor amounts of surface or near-surface water at locations where none existed previously. The damage from such water is expected to be minor and cosmetic in nature, if corrected immediately. Corrective action should be taken on a site-specific basis if, and when, it becomes necessary.
- 20. Planter areas, flower beds, and planter boxes shall be sloped to drain away from the foundations, footings, and floor slabs. Planter boxes shall be constructed with a sealed bottom, and be provided with a subsurface drain installed in gravel, with the direction of subsurface and surface to flow away from the foundations, footings, and floor slabs, to an adequate drainage facility. Landscape vegetation areas around the building shall be provided with positive surface drainage to flow away from the perimeter of the



building. Sufficient and effectively working area drains shall be installed and provided around the building.

21. Any backfill soils placed adjacent to or close to foundations, in utility trenches, or behind retaining walls, that support structure and other improvements (such as patios, sidewalks, driveways, pavements, etc.), other than landscaping in level ground, shall be compacted to at least 90 percent of Maximum Dry Density. It is recommended that **Geotechnical Exploration**, **Inc.** observe and test the backfill during placement.

**Geotechnical Exploration, Inc.** will accept no liability for damage to structures that occurs as a result of improperly backfilled trenches or walls, or as a result of fill soils placed without our observations and testing.

# G. <u>Miscellaneous Recommendations</u>

- 22. Following placement of concrete floor slabs, sufficient drying time must be allowed prior to placement of floor coverings. Premature placement of floor coverings may result in degradation of adhesive materials and loosening of the finish-floor materials.
- 23. Subsurface structures that are founded in any potentially expansive clay soils shall be properly designed by a structural engineer with recommendations provided by the soils engineer.
- 24. The remaining soil work to be completed at the site (additional grading on the building pads, excavation of foundations, trench and retaining wall backfilling, subgrade and base preparation of areas to receive exterior



improvements or pavement, etc.) should be performed under the observations and testing of the geotechnical consultant.

- 25. It is also recommended that all footing excavations be observed by a representative of the geotechnical consultant prior to placing concrete, to verify that footings are founded on properly compacted or dense natural soils.
- 26. Preliminary recommendations for pavement design may be based on R-value tests performed on typical on-site soils tested during mass grading and assumed traffic index. The typical R-value obtained in soil samples from the ER&TC property has been at least R=70. The geotechnical consultant for the Palomar Medical Center West project may obtain additional soil samples from finish subgrade of areas to receive pavement, and with the appropriate traffic index design the pavement cross sections of the project.

## **SUMMARY**

Based on our field testing and grading observation, it is our opinion that the grading operation described herein, in general, was performed in conformance with the City of Escondido Grading Ordinance. It is to be understood that our test results and opinion of general acceptance do not guarantee that every cubic yard of compacted fill has been compacted to specification since not every cubic yard has been tested. Our test results indicate the measured compaction degree obtained at the specific test location. We can only attest that our tests and observations have been made in accordance with the care and current professional standards in our field.



All observed or tested work done during the grading operation appears, in general, to have been performed in accordance with the grading plans, City of Escondido Grading Ordinance, and per our recommendations. As described in the report, some parts of the project were not fully undercut 5 feet to provide at least 5 feet of fill under the building pads. The grading described herein was observed and/or tested between March 28 and December 15, 2004.

All statements in the report are applicable only for the grading operation observed by our firm, and are representative of the site at the time of our final site visit before the report was prepared. The firm of *Geotechnical Exploration, Inc.* shall not be held responsible for fill soils placed without our observations and testing at any other time, or for subsequent changes to the site by others, which directly or indirectly cause poor surface or subsurface drainage, water erosion, and/or alteration of the strength of the compacted fill soils.

In the event that any changes in the nature, design, or location of the building or improvements are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the conclusions of this report modified or verified in writing.

Professional opinions presented herein have been made based on our tests, observations, and experience, and they have been made in accordance with generally accepted current geotechnical engineering principles and practices within the County of San Diego. This warranty is in lieu of all other warranties, either expressed or intended.



Thank you for this opportunity to be of continued service. Should any questions arise concerning this report, please do not hesitate to contact us. Reference to our **Job No. 04-8585** will help to expedite a reply to your inquiries.

Respectfully submitted,

GEOTECHNICAL EXPLORATION, INC.

Jaime A. Cerros, P.E. | R.C.E. 34422/G.E. 2007 Senior Geotechnical Engineer

Enclosures: Figure Nos. I through IV

cc: Addressee (4)



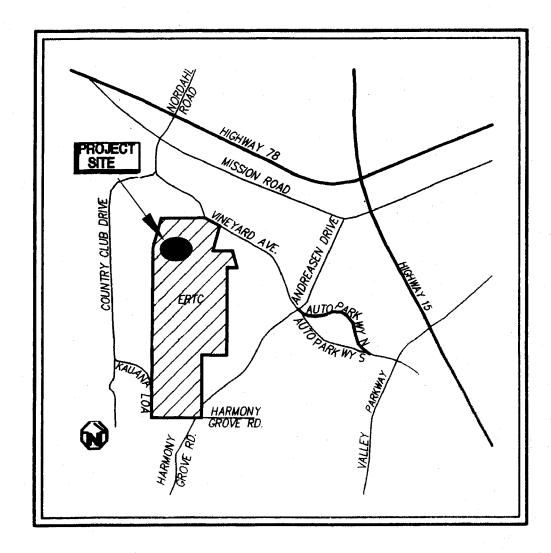


Leslie D. Reed, President

R.G.3391/C.E.G.999 [exp. 3-31-07]



# VICINITY MAP





Parcel 2,3 and 7 ERTC Project Escondido, CA.

Vicinity Map By McArdle Associates Architects. Figure No. I Job No. 04-8585



04-8585-sb-vic

July 2005

# **APPENDIX E**

URS Site Boring and Geophysical Exploration

Figures 1 and 3

**Boring Logs** 

Photos of Boring Program

Geophysical Survey

# PRELIMINARY GEOTECHNICAL INVESTIGATION AT ERTC SITE

The proposed Palomar West Medical Center site is shown in Figure 1 indicating the existing site contours superimposed on the original site contours with the cut and fill areas highlighted accordingly. Figure 2 contains cross sections through the site showing the cut and fill areas. More than 60' of rock was blasted away to produce 1.4 Million cubic yards of fill for the level construction pad shown in Figure 1.

# Site Boring Program

URS conducted the preliminary site boring program at four locations as shown in Figure 3. Superimposed on this figure is a layout of the hospital buildings as developed in January 2006. Borings B-1 and B-1A were cored in the cut rock area. Boring B-1A was advanced to 92' below grade and was used for the down hole geophysical program conducted by GEOVision (see report attached) to assess the shear wave velocity in the native bedrock.

When the drilling contractor attempted to bore through the supposedly fine grain well-compacted soil fill materials on the site at borings B-2, B-3 and B-4, he ran into sands, gravels, cobbles and boulders. The drilling equipment hollow stem auger hung up in the boulder field as the cobbles and boulders moved against the side of the casing causing damage to the equipment. This contractor was forced to withdraw from the project without completing the program of drilling in early May 2005.

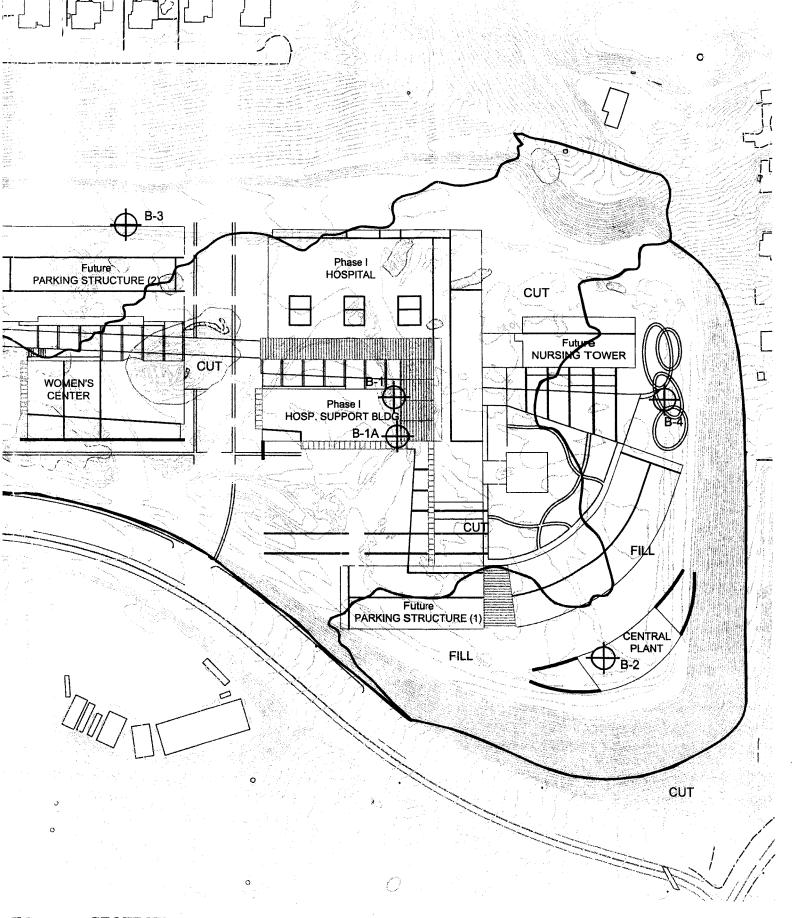
A new contractor was hired with air percussive hammer drilling equipment and large compressor to complete the bore holes (see clouds of rock dust blown from the borings in attached photographs). This work was done in late June 2005 and borings B-2, B-3 and B-4 shown in Figure 3 were completed. The boring logs from this program are attached as Figures A-1 through A-6. With the percussive hammer the drilling could advance

through the rock fills and into bedrock. To keep the holes open for the geophysical survey, drilling mud consisting of bentonite slurry was poured into the bore holes as the casing was pulled up. About as fast as the mud was placed in the holes, it dissipated into the ground at borings B-2, B-3 and B-4 indicating large voids within the fill materials. The drilling proved that the fills at the site were not well compacted sands and gravels but were large boulders with significant voids between them. When the percussive hammer hit the natural rock formation, the holes below that point remained open for the geophysical program without slurry or casing.

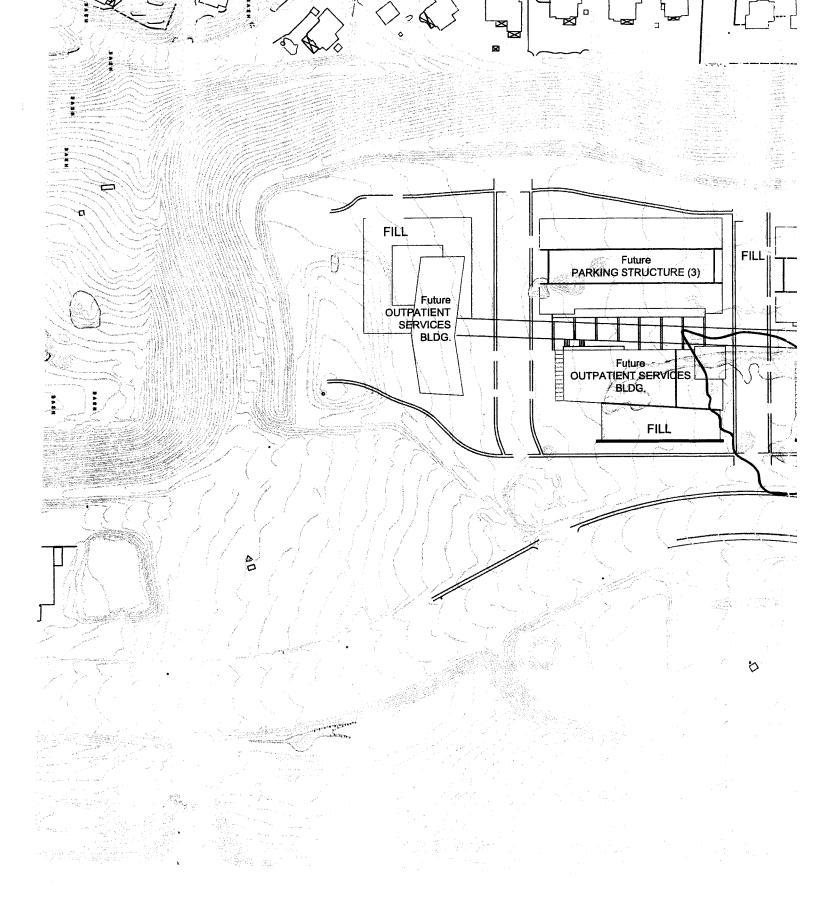
In summary, the five preliminary borings -2 in rock and 3 in fill extending into rock - proved that the fill materials at the site were merely rock fills and not soil fills as originally anticipated based on design drawings and geotechnical recommendations by GEOCON.

# Site Geophysical Survey

Attached is GEOVision's report of September 13, 2005 describing the geophysical survey that was conducted in borings B-1A, B-1, B-2 and B-3. This data also indicated the distinct boundaries between the rock fills and the native bedrock foundation.



LIMINARY GEOTECHNICAL INVESTIGATION FOR PROPOSED PALOMAR WEST MEDICAL CENTER



# **APPENDIX F**

Cost Estimate for Remediation of Rock Fill Grading at ERTC Site

Joe Hook / Da Wu / Bill Gates

#### DRAFT

proposed Palomar Medical Center West (PMC West) site

The GEI report and photos of the site grading specifically define the grading as a rock fill. Our soil boring test program failed in this material and we had to use rock fill drilling procedures to test sample the fill. The GEI photographs attached show placement of the rock fill.

The grading plans for the fill areas of the site prepared by Project Design Consultants, call for a fine soil fill with a few rock boulders up to 4' in diameter placed randomly and well spaced in the fill below the top 10 feet of soil fill. These plans were approved by the City of Escondido for construction in April 2005, after all the rock fill had been placed at the site. No sets of drawings approving rock fills at the site could be produced by the City of Escondido from their files.

A grading construction permit for the ERTC site was issued January 23, 2004, well before the actual design drawings for the grading process were approved on April 1, 2005. This approval process for construction plans appears counter to normal building code approval processes.

The use of a rock fill in place of a soil fill appears to have evolved during the grading process. We reviewed a report developed by Geocon which recommended the use of a County-approved soil fill. This was in May of 2004 at the beginning of site grading for the proposed area of the hospital. We made recommendations to improve the soil fill. Our recommendations were intended to assure acceptance of the site grading by OSHPD so hospital buildings could be constructed anywhere on the fills without the need for geo-remediation. James McCann's contractor estimated an added cost of \$1 to \$1½ Million to grade the 40 acre site to our recommendation vs. Geocon's.

The rock fill at the PMC West site is not acceptable for hospital construction and will even require special foundation and soil stabilization under conventional (nonhospital) building construction such as parking structures or MOBs. About 40% of the site is on rock fill. The remaining 60% is on rock cut or shallow soil fills. The major hospital buildings would have to be founded on the natural rock cut areas to satisfy OSHPD.

Remedial (retrofit) measures have been studied to stabilize the rock fills and make them acceptable for hospital construction as well as conventional non-OSHPD construction. The schemes evaluated included:

(see Proposal)

- 1. Remove rock fill, grind it to a mix of fines and replace with compacted soil fill containing limited rock randomly placed, per URS grading specification.
- 2. Pressure grout the void space between the rocks in the rock fill to stabilize the site against gross uneven site settlement and slope movement.
- 3. Combine local grouting and tiebacks with concrete retaining walls.
- 4. Site reconfiguration in combination with remediation.

### Remove and Replace Fills

#### Option 1

Remove rock fill, crush rock into fine size stone and replace the fill. This is the scheme that appears the most satisfactory for future site development. The cost is almost double normal removal and replacement procedures using fine imported soil fill. The City of Escondido will not allow importation of fine fills by truck on the city streets according to GEI and the City grading permit reviewers we talked to during our research.

Rudolph & Sletten and URS Corp have concurrently estimated the volume of fill to be removed and replaced. With the input from grading contractors who have worked with the granite rock in the area we have costs for the crushing of 4' diameter rock down to the correct mix of fine.

The total volume of rock fill including void space between the rock was computed from site contour drawings provided in CAD documents by Joe Fogarty of JRMC Realty in February 2005. These drawings were reportedly the final grading plans and match the stamped permit grading drawing we copied at the city building department in Escondido. The volume is 1.39 million cubic yards of fill. There are some uncertainties that could lead to even greater volume for the backfill than we have computed. They are:

- •The depth of native soil over rock that will be removed. This could range from 2 to 10 feet based on Geocon's soil boring logs.
- •The void volume in the existing fill.
- •The percentage of existing fill that will be reuseable without further crushing.

These factors and other unforeseen conditions have led to a range of construction cost from \$20 to \$30 Million for Option 1.

#### Option 2

Pressure grout rock fill voids. There are several pressure grouting procedures proposed by Gary Taylor of Hayward Baker, the geo-remediation contractor we consulted that specializes in the type of work that could be used to stabilize the rock fill in place.

The concept of pressure grouting the voids between the rocks in the rock fill was suggested as an option by OSHPD's reviewer Robert Sydnor of CGS.

The total cost to grout stabilize the rock fills was estimated to range from \$20 to \$40 per square foot of fill plan area. Since the top 10 feet of fill could be fine soils with small rock interspersed randomly, the rock fill's effective surface area was computed from the CAD

drawings at a -10 foot contour below the finished grade of the site. In essence, the top 10 feet of fine soil rock fills does not require grouting. The total surface area of rock fill that requires pressure grouting is calculated at 1.27 Million square feet.

Pressure grouting is estimated to range from \$25.5 Million to \$51 Million. The more probable cost would be on the order of \$25/sq. ft. or \$32 Million.

#### Option 3

Combination of pressure grout and tie back walls. This scheme would stabilize the slope and rock fill behind using a limited dike of grout and retaining walls that would be tied back to the rock of the site.

The concept was reviewed with Hayward Baker and found to be more costly than the use of pressure grout over the complete area of rock fill.

#### Option 4

Site reconfiguration in combination with remediation. This is comparing apples with oranges. If PPH is willing to restrict hospital building construction to rock cut areas and extend basements to rock cuts in the existing fill areas, the site stabilization cost could be reduced for Option 1 or Option 2.

If the rock fill is cut back using terraced slopes with Option 1 or 2 remediation, the retrofit stabilization costs could be further reduced.

If buildings are constructed over the rock fills using caissons that are socketed into rock and pressure grout is injected to fill the voids over a plan area equal to twice the building plan, the construction would be stable and could reduce the need for further site stabilization.

All of these variations that are part of Option 4 could lead to reduced site remediation costs, but added building foundation costs.

We agree with Joe Hook of Rudolph & Sletten that restrictions suggested in Option 4 might bring down the estimated cost for total rock fill remediation to somewhere between \$10 and \$15 Million, or half the estimated cost for Option 1.

The next step is to work with the architectural and structural team members to review possible site utilization concepts that would minimize costly site remediation and foundation concepts. Cost estimates for specific schemes could be developed to better assess the rock fill remediation impact.

#### Summary

Options	Estimated Cost					
	Low	High				
Remove and replace rock fill	\$20 Million	\$30 Million				
Pressure grout rock fill	\$25.5 Million	\$51 Million				
3. Pressure grout and tie back walls	Not reasonable	Not reasonable				
4. Site reconfiguration and special building foundations	\$10 Million	\$15 Million				









RANGE ESTIMATES - RECAP	QUANTI	TIES	RATI	Ē.	TOTALS	RANGE
OPTION 1 - REMOVE & REPLACE FILL	1,390,000	1,390,000 CY	\$14.94	\$23.22	\$20,766,872	\$32,273,781
OPTION 2 - PRESSURE GROUT FILL AREAS > 10' DEEP	1,270,000	1,270,000 SF	\$20.00	\$40.00	\$25,400,000	\$50,800,000
OPTION 3 - REMOVE & RECOMPACT; REDUCE TOP OF FILL ELEVATION	1,794,733	1,794,733 SF	\$9.22	\$5.93	\$16,551,924	\$10,645,773
CITRICADO PKWY - ADDITIVE ALTERNATE	117,000	117,000 SF	\$37.34	\$37.34	\$4,369,056	\$4,369,056 PARTIAL R/R
INFRASTRUCTURE UPGRADES						EXCLUDED

			QUANTIT	IFS	RATE		TOTALS RA	ANGE	REMARKS	
PTION 1 - REMOVE & REPLACE FILL			QOARTII	ILO .		<del></del>				
THE THE TWO THE TENAL CIT	7E6		1,390,000 TC	TAL YARDS						
OSSIBLE RANGE OF EXISTING MATERIAL SIZ	.69		30%	30%						
' to 2'			25%	15%						
to 6"-			15%	10%						
' to 3/4"-			15%	10%				*		
4" -			15%	35%						
OIDS	<u> </u>		100%	100%						
OTAL			1,390,000	1,390,000 CY						
							\$90,000	\$90,000		
OBILIZE				1 LS	\$10,000.00		\$10,000	\$10,000		
SITE FENCE				1 LS	\$50,000.00		\$50,000	\$50,000		
EQUIPMENT MOVE ON			1	1 LS	\$30,000.00		\$30,000	\$30,000		
EROSION CONTROL			1	1 13	ψ00,000.00					
			1,181,500	903,500 CY	\$2.78	\$2.72	\$3,287,654	\$2,453,654	NET VOLUMES	
KCAVATE FILL AREAS	85%	65%	265,886	265,886 CY	\$1.35	·	\$358,947	\$358,947	TOP 4'	
REMOVE & STOCKPILE	19%	19%		637,614 CY	\$3.00		\$2,746,841	\$1,912,841		
MATERIAL TO CRUSHER	66%	46%	915,614	1,794,733 SF	\$0.08		\$143,579	\$143,579		
SCARIFY AND RECOMPACT FILL AREAS			1,794,733	478,596 SF	\$0.08		\$38,288	\$38,288	15' HIGH	
EROSION CONTROL OF STOCKPILE			478,596	476,030 01						
			715,614	537,614 CY	\$8.06	\$8.15	\$5,767,734	\$4,381,460		
ROCESS MATERIAL FROM EXISTING FILL			200,000	100,000 CY	\$4.00		\$800,000	\$400,000		<del></del>
SEPARATE SOIL, NET VOLUME			200,000	1 LS	\$30,000.00		\$30,000	\$30,000		T
CRUSHER SET UP		000/	143.123	107,523 CY	\$5.00		\$715,614	\$537,614		10
4' to 2'	20%	20%	71,561	- CY	\$2.50		\$178,903	\$0		15
2' to 6" minus	10%	0%	71,561	80,642 CY	\$4.00		\$286,245	\$322,568		25
6" to 3/4" minus	10%	15%	250,465	215,045 CY	\$10.00		\$2,504,648	\$2,150,454		50
¾" minus to fines	35%	40%	250,465 178,903	134,403 CY	\$7.00		\$1,252,324	\$940,824	l .	
PROCESS BALANCE	25%	25%	170,903	137,703 01	4					











OPTION 1, continued		QUANTI	ΓIES		RATE		TOTALS I	RANGE	
PLACE MATERIAL FROM EXISTING FILL CRUSHER TO FILL STOCKPILE TO FILL RECOMPACT TO 95% PREMIUM ROUGH GRADE		1,181,500 915,614 265,886 1,181,500 2,568,733	903,500 637,614 265,886 903,500 2,568,733	CY CY	\$3.04 \$2.00 \$1.00 \$1.00 \$0.12	\$3.05	\$3,586,862 \$1,831,227 \$265,886 \$1,181,500 \$308,248	\$2,752,862 \$1,275,227 \$265,886 \$903,500 \$308,248	
ATERIAL FOR VOIDS  AVERAGE DEPTH OF NEW CUT  AVERAGE LOWERING OF FINAL GRADES  REMOVE & STOCKPILE TOP 4'  EROSION CONTROL OF STOCKPILE  ROCK EXCAVATION  MATERIAL TO CRUSHER  CRUSHING  SCARIFY AND RECOMPACT CUT AREAS  CRUSHER TO FILL  STOCKPILE TO FILL  RECOMPACT TO 95% PREMIUM	15% 35%	208,500 7.27 2.19 114,667 206,400 208,500 208,500 208,500 774,000 208,500 114,667 323,167	486,500 16.97 5.11 114,667 206,400 486,500 486,500 486,500 174,000 486,500 114,667 601,167	FT FT CY SF CY CY SF CY CY	\$1.35 \$0.08 \$15.00 \$3.00 \$5.00 \$0.30 \$2.00 \$1.00 \$1.00	\$27.49	\$6,146,725 \$154,800 \$16,512 \$3,127,500 \$625,500 \$1,042,500 \$232,200 \$417,000 \$114,667 \$323,167 \$92,880	\$154,800	15' HIGH
ROUGH GRADE CONTINGENCY		774,000 \$18,878,974	774,000 \$23,052,701		10%	40%	\$1,887,897	\$9,221,080	
OPTION 1 - TOTALS	100% 100%	1,390,000	1,390,000		\$14.94	\$23.22	\$20,766,872 \$20,766,872	\$32,273,781 \$32,273,781	
PROJECT AREA & COST/SF		2,685,733 1,794,733	2,685,733 1,794,733		\$7.73 \$11.57	\$12.02 \$17.98	\$20,766,872	\$32,273,781	

OPTION 2 - PRESSURE GROUT FILL AREAS > 10' DEEP					TOTALS	RANGE	
FILL AREAS, > 10' DEEP	1,270,000	1,270,000 SF	\$20.00	\$40.00	\$25,400,000	\$50,800,000	
OPTION 2 - TOTAL	1,270,000	1,270,000 SF	\$20.00	\$40.00	\$25,400,000	\$50,800,000	

OPTION 3 - REMOVE & RECOMPACT; REDUCE TOP OF FI	LL ELEVATION	ON			TOTALS	RANGE		
VOID VOLUME FILL AREA REDUCE AVERAGE TOP OF FILL ELEVATION MOBILIZE EXCAVATE FILL AREAS PROCESS MATERIAL FROM EXISTING FILL PLACE MATERIAL FROM EXISTING FILL	208,500 1,794,733 (3.14) 1,181,500 715,614 1,181,500	486,500 CY 1,794,733 SF (7.32) FT LS 903,500 CY 537,614 CY 903,500 CY	\$2.78 \$8.06 \$3.04	\$2.72 \$8.15 \$3.05	\$90,000 \$3,287,654 \$5,767,734 \$3,586,862	\$4,381,460	NET VOLUMES NET VOLUMES EXCLUDED	
MATERIAL FOR VOIDS CONTINGENCY	\$12,732,249	\$9,677,975 LS	30%	10%	\$3,819,675	\$967,798	<u></u>	
OPTION 3 - TOTAL	1,794,733	1,794,733 SF	\$9.22	\$5.93	\$16,551,924	\$10,645,773		



## PALOMAR POMERADO HEALTH ERTC SITE, FILL REMEDIATION ESTIMATE 8/30/2005





CITRICADO PKWY - ADDITIVE ALTERNATE			•	TOTALS RANG	E
CITRICADO PKWY. 96+00 to 97+00	100	LF	\$3,384.44	\$338,444	
REMOVE & REPLACE UTILITIES				<b>\$0</b>	•
12" WATER	100	LF	\$200.00	\$20,000	
8" WATER	100	LF	\$150.00	\$15,000	
FH NO. 3 & BRANCH PIPING	1	LS	\$7,500.00	\$7,500	
ST. LIGHT NO. 5	1	LS	\$4,000.00	\$4,000	
DRY UTILITIES, ALLOW	100	LF	\$175.00	\$17,500	
SDG&E CABLING & TERMINATIONS	· ·			\$0	EXCLUDED
REMOVE, PROCESS & REPLACE FILL	4,815	CY	\$30.00	\$144,444	
REMOVE & REPLACE SURFACE IMPROVEMENTS	13,000	SF	\$10.00	\$130,000	
CITRICADO PKWY, 106+00 to 114+00	800	LF	\$3,946.00	\$3,156,800	
REMOVE & REPLACE UTILITIES	300 <u>,</u>	<del>-</del> -	**,**	\$0	•
12" SEWER	800	LF	\$75.00	\$60,000	
6" SEWER	330	LF	\$40.00	\$13,200	
12" WATER	800	LF	\$200.00	\$160,000	
2" WATER	900	LF	\$30.00	\$27,000	
8" RECLAIMED WATER	800	LF	\$150.00	\$120,000	
2" RECLAIMED WATER	470	LF	\$30.00	\$14,100	
36" STORM DRAIN	800	. LF	\$300.00	\$240,000	
24" STORM DRAIN	180	LF	\$200.00	\$36,000	
FH & BRANCH PIPING	3	LS	\$7,500.00	\$22,500	
ST. LIGHT	6	. LS	\$4,000.00	\$24,000	
DRY UTILITIES, ALLOW	800	LF	\$175.00	\$140,000	
SDG&E CABLING & TERMINATIONS				\$0	EXCLUDED
REMOVE, PROCESS & REPLACE FILL	42,000	CY	\$30.00	\$1,260,000	
REMOVE & REPLACE SURFACE IMPROVEMENTS	104,000	SF	\$10.00	\$1,040,000	
CONTINGENCY	\$6,990,489	\$0 LS	25%	\$1,747,622	
CITRICADO PKWY - TOTAL	117,000	SF	\$37.34	\$4,369,056 \$4	1,369,056

November 5, 2007

Wally Gutierrez 1730 Fairdale Avenue Escondido, CA 92027

## Public Records Act Request

Dear Mr. Gutierrez:

In follow-up to your request of October 5, 2007, and our response letter of October 15 followed by your visit to this office to review documents, our letter of Friday, November 2, 2007 enclosing copy documents and cost, was picked up by Mr. Robroy Fawcett and paid for on your behalf. In response to your later telephone call that day, copies of documents regarding the same matter and extracted from the ERTC Site Grading Report of December, 2005, which you had also reviewed, amounting to 41 copies x 10c per copy = \$4.10, are available for collection from this office.

Kindly provide a check for this amount made payable to Palomar Pomerado Health.

Thanking you in advance.

Sincerely,

Christine D. Meaney

Assistant to Board of Directors

u\my docs\public info reqs\gutierrez ltr 11-05-07:cdm