GT_003104

CONSTRUCTION MANAGEMENT PLAN

LOT 5
PALATINE CREST

3929 Aloma Mae Way

15 1E 27 BA 505

3218 SW

01-147838-RS

Date: July 27, 2001

To: City of Portland

From: David Clay

Re: Lot 5 – Construction Management Plan

INTRODUCTION - Since acquiring this property in 1991, I have worked with Rick Krahn of R.K. Krahn Construction to build the three existing homes in the PUD as well as three additional homes on adjacent lots. These homes are all tastefully designed and well constructed. Extensive landscaping has been added to the common areas outside the resource area. My proposal for Lot 5 is single level home (w/daylight basement) that will complement existing homes and preserve views into the resource area.

60% of Lot 5 is within the resource area. The area outside the resource area totals 3,748sf, but the configuration is odd-shaped, making locating a home outside the resource area difficult. For this reason, I contacted Tom McGuire, the planner assigned to my original PUD Application before finalizing my plans and specifications. Although he was still familiar with the development, he suggested I speak with Jessica Wilcox of Planning and Development review.

Over the span of 60-75 days, I communicated with Ms. Wilcox by phone and fax and visited her office on one occasion. She called for the original Application file from City archives to clarify questions about reduced setbacks for Lot 5. Based on her review of my preliminary site plan, I revised the house "footprint" by reducing dimensions of several rooms, thereby shrinking the overall length of the house by 6 feet. This allowed a wider disturbance area, but still less than the desired 10 feet. I then presented Ms. Wilcox with two alternative site plans based on this reduced footprint. She consulted with Marisol Bradley and suggested I proceed with the site plan I subsequently used to prepare my final plans and specifications.

PRE-CONSTRUCTION ACTIVITY – The exact boundary of the resource covering Lot 5 was determined by survey at the time the Partition Plat was filed in 1993. Centerline Concepts, the survey firm who prepared the plat, will be asked to stake the resource boundary. Silt fencing will be placed on this line, then extend to the north as shown on the attached site plan. Barrier fencing will be erected immediately behind the silt fencing. The survey firm will also locate the corner points of the foundation.

PRE-EXCAVATION ACTIVITY – At the point erosion control measures have been approved, Two (2) maple trees and one (1) cluster of alder trees within the building envelope will be removed. The combined diameter of these trees is approximately 76 inches.

Lot 4 of Palatine Crest is adjacent to the north and entirely outside the resource area. This property is vacant and will be used for all construction support activities, including temporary staging of excavation spoils (see photo #5).

EXCAVATION/FOUNDATION - All excavation activity will occur from the north side of Lot 5 or from Lot 4 using a track hoe. Spoils will be placed in the designated area on Lot 4. Footing and foundation forms will be set up working from the interior of the building footprint. Concrete will be poured using a pump truck stationed on Clara Mae Way or Lot 4. Rain drains, back-check valves, the storm water seepage trench and septic holding tank will be set. Once the concrete has cured, the foundation will be backfilled with the track-hoe. Along narrow portions of the disturbance area the foundation will be backfilled by hand.

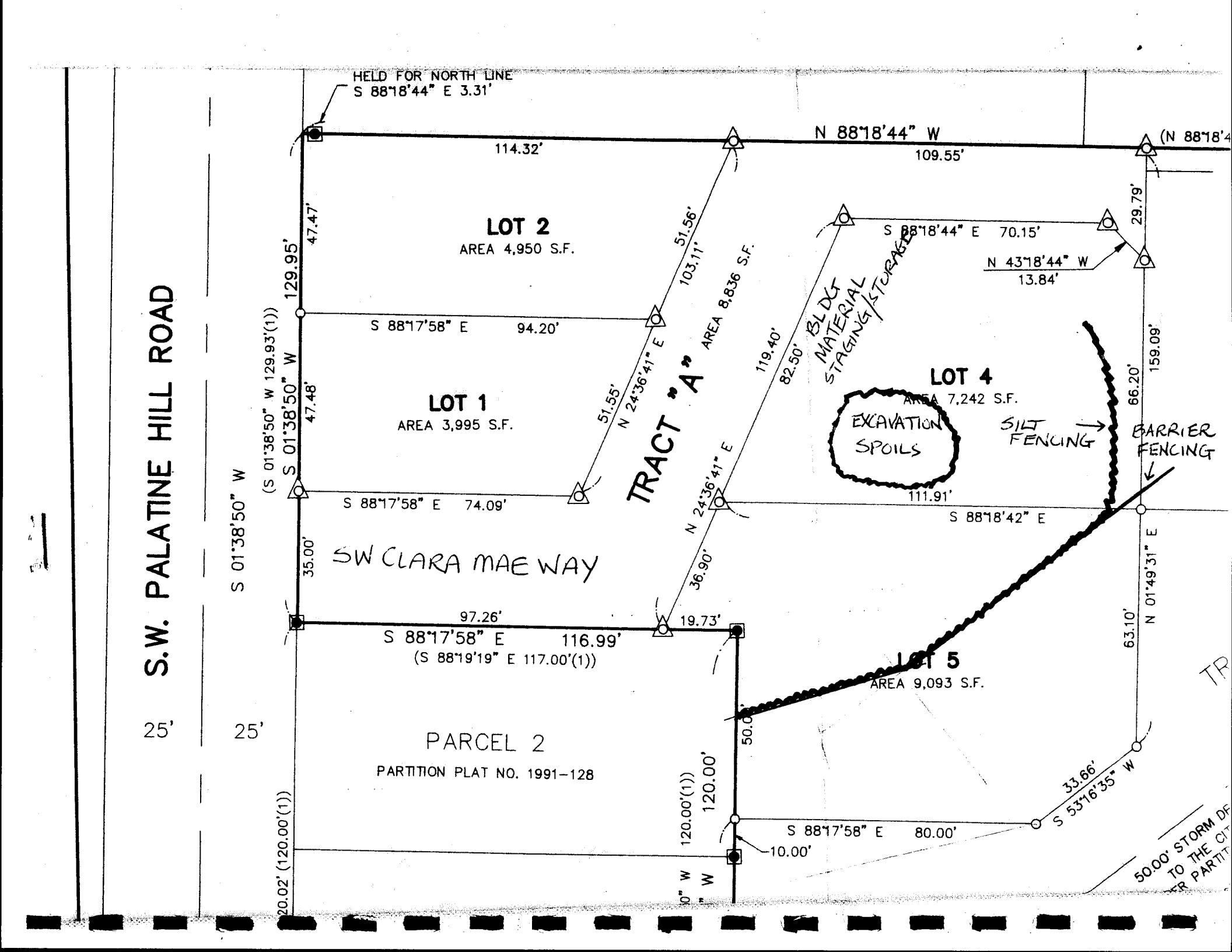
UTILITY WORK – Minimum excavation will be required to complete utility connections. Water and sewer lines have already been stubbed to the site. Electrical power will come from a transformer located at the NW corner of Lot 4 (photo #1).

FRAMING – All framing materials will be staged on Lot 4. Construction personnel will park on the upper portions of Clara Mae Way or on Palatine Hill Road. All construction personnel will be instructed to stay outside the resource area. Construction debris will be collected daily and hauled-off weekly. Construction activity in the disturbance area will be restricted, with only limited carpentry work occurring, all under strict supervision.

LANDSCAPING PLAN – Trees and shrubs have already been planted in the SE corner of Lot 5 (photo #4). Additional trees and shrubs will be added in this area after the seepage trench and septic holding tank have been buried and the area graded. After backfill is complete, excess soil will be hauled off and the staging area for excavation spoils hydro-seeded. At the point the building shell is completed, shrubs and ferns will be planted in the disturbance area.

SUPERVISION - Rick Krahn of R. K. Krahn Construction attended hearings and presented part of the construction plan to City officials during the original PUD approval process. He is fully aware and respectful of the restrictions that apply to this site. I will be visiting the job site several times each day. I will be living at 0226 SW Clara Mae Way (Lot 3 of the subject PUD) until construction is complete, so it will be convenient to closely monitor construction activity.

I plan to live in this home. It has been designed to complement existing homes and to preserve the views of the resource area for my neighbors. Although I am proposing a narrow disturbance area, I believe the availability of Lot 4 for staging as well as the skills and experience of the parties involved make my plan reasonable.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S 88°18'44" E 3.31'
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LOT 2
AREA 4,950 S.F.
47.47'
129.95'
51.56'
103.11'
S 88°17'58" E 94.20'
S 01°38'50" W 129.93'(1))
S 01°38'50" W
47.48'
LOT 1
AREA 3,995 S.F.
51.55'
N 24°36'41" E
TRACT "A" AREA 8,836 S.F.
S 88°17'58" E 74.09'
35.00'
SW CLARA MAE WAY
S 01°38'50" W
119.40'
82.50'
BLDG MATERIAL STAGING/STORAGE
S 88°18'44" E 70.15'
29.79'
N 43°18'44" W
13.84'
LOT 4
AREA 7,242 S.F.
EXCAVATION SPOILS
SILT FENCING
BARRIER FENCING
66.20'
159.09'
N 24°36'41" E
111.91'
S 88°18'42" E
36.90'
97.26'
19.73'
S 88°17'58" E 116.99'
(S 88°19'19" E 117.00'(1))
63.10'
N 01°49'31" E
LOT 5
AREA 9,093 S.F.
PARCEL 2
PARTITION PLAT NO. 1991-128
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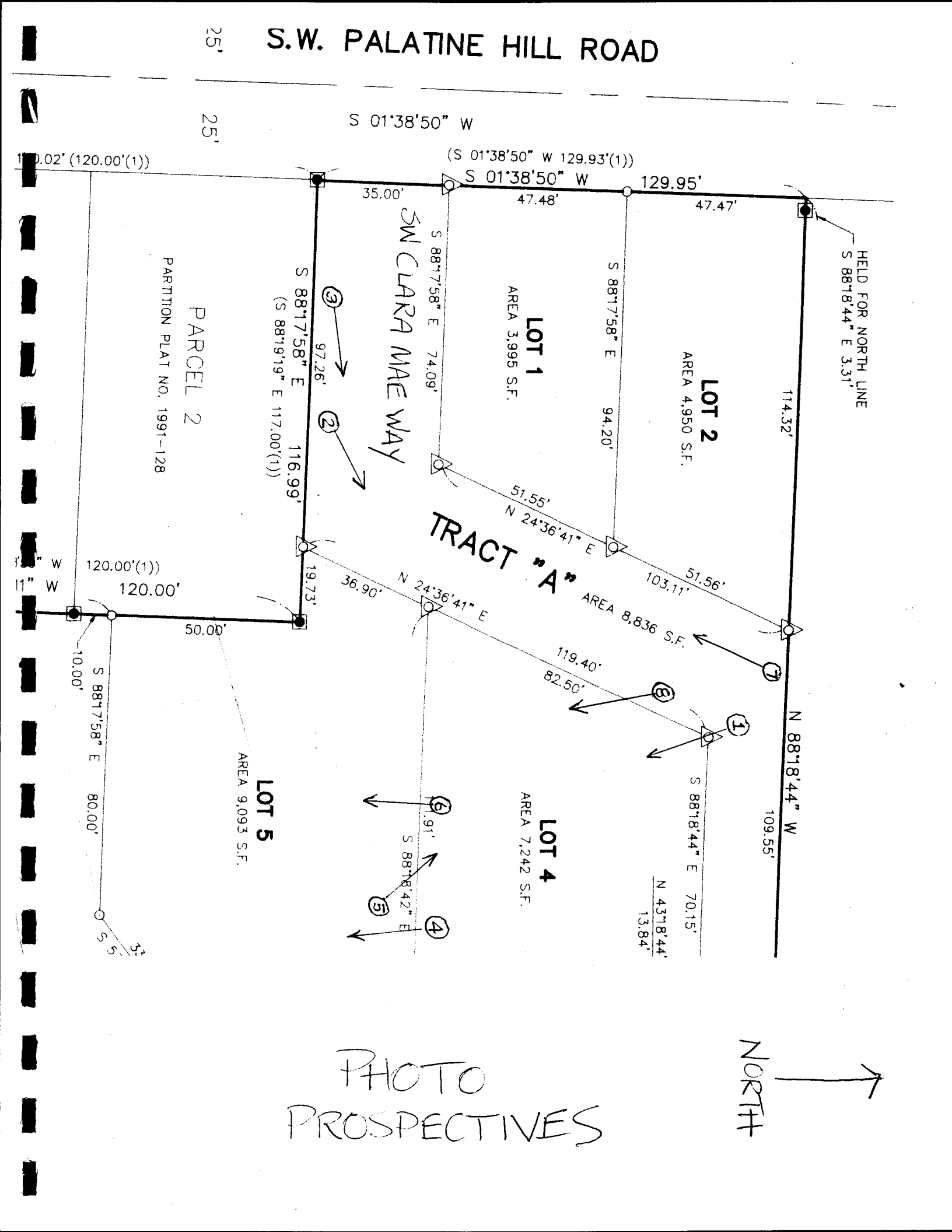
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PHOTO PROSPECTIVES
NORTH

PROSPECTIVE #1

Looking across Lot 4 at Lot 5. Transformer for underground power in foreground. Street trees on right.

PROSPECTIVE #2

Looking east down SW Clara Mae Way. Lot 3 in background. Approximate western boundary of Lot 5 is marked.

PROSPECTIVE #3

Looking east down SW Clara Mae Way near intersection with SW Palatine Hill Road. Approximate location of curb cut for Lot 5 shown.

PROSPECTIVE #4

Landscaping already in place on eastern boundary of Lot 5.

PROSPECTIVE #5

Looking over Lot 4 showing area where excavation spoils will be placed. House in background is Lot 2

PROSPECTIVE #6

Looking south at Lot 5 into Alder tree cluster.

PROSPECTIVE #7

Looking south along SW Clara Mae Way. Houses on Lots 1 and 2 on right. Also shown is landscaping added to common area on west side of SW Clara Mae Way.

PROSPECTIVE #8

Looking south at Lot 5. Building materials will be staged on upper portion of Lot 4 (in foreground). Street trees shown on east side of SW Clara Mae Way.

K.C. ROBBINS P.E., P.G., C.E.G.
GEOTECHNICAL CONSULTANT
246-4384

ADD TO DB & FILE 3929/4

August 27, 1993

Mr. David Clay
11020 S.W. Esquiline Circus
Portland, Oregon 97219

Dear Mr. Clay:

Report
Soils Investigation & Permeability Testing
Proposed Palatine Crest Subdivision
S.W. Palatine Hill Rd.
Near S.W. Orchard Crt.
Portland, Oregon

This report summarizes the results of a soils investigation and permeability testing at subject site. The subdivision will include 5 residential lots and some 300 ft of street. Since the area is not served by storm sewers, the City of Portland requires that storm water disposal be an on-site system designed by your civil engineer in accordance with soils permeability established by your geotechnical engineer.

The purpose of the investigation was to provide information regarding subsurface soil conditions and permeabilities. To accomplish this purpose, the scope of the investigation included test pit explorations to provide soils information, permeability testing for design data for storm water disposal, provision of appropriate parameters for foundation support and site grading and the preparation of this report.

Field Explorations & Testing

Subsurface conditions at the site were explored by means of test pits excavated with a rubber-tired extenda-hoe. The locations of the test pits are shown on the Plot Plan, Plate 1. Tabulated logs of the test pits appear on the Logs of Test Pits, Plate 2. Tentative plans consider location of storm water seepage trenches in the vicinity of Test Pits 4 & 7. Following completion of the test pit excavations, rough surface profiles on the slope below Test Pits 4 & 7 were obtained with a tape and hand level. Sections developed from these measurements appear on Plate 3.

Field permeability tests were performed in the area of Test Pits 4 & 7 to obtain general seepage rate information. Test holes were drilled with an 8-inch hand auger to a depth of 5 1/2 ft. A 6-inch diameter plastic pipe was inserted in the holes and driven to a depth of 6 inches below the bottom of the auger hole. The pipes were filled with water and allowed to soak after which periodic measurements were taken to record the drop of the water level in the pipe with time.

Site Conditions

Old site fills were revealed at the locations of Test Pits 1, 2 and 3. The fills range from 1.5 to 4 ft in depth and are quite variable in consistency. Below the fills and/or a 12" to 18" layer of topsoil and roots, natural soils at the site consist of an upper layer of mottled yellowish-brown, red-brown and gray clayey fine sandy silt to silty fine sand. This layer varies from very firm to hard. All test pits except #4 and #7 were terminated in this firm layer. Test Pits 4 and 7 are in the general areas proposed for the storm water disposal facilities. These test pits were extended to greater depths to investigate soils below the likely bottoms of the trenches and to check for a local water table. Soils below a depth of 6 ft in Test Pit 4 and 1 ft in Test Pit 7 are more sandy -- fine sandy silt to silty fine sand. No free water is present within the depths explored; however, the soils became more moist below a depth of 9 ft in Test Pit 4 and 8 ft in Test Pit 7.

Discussion and Conclusions

General

Fill soils at the site are quite variable in nature and consistency. The upper fill at the location of Test Pit 1 is quite firm but the layer of ashes below 2 1/2 ft is loose. It is recommended that the fills be stripped from the street area and from the driveway and building areas. Fill soils containing no deletirious material or pieces of concrete, asphalt or rock larger than 4 inches can be utilized in site grading in yard areas.

Natural soils below the fills and/or topsoil layers are very satisfactory for support of residential type foundations. A design bearing value of 2000 lbs/sq ft can be used for the house foundations provided the bottom of the footing is established in the

natural soils and at least 1 1/2 ft below lowest adjacent exterior grade.

On-site Disposal

The fine grained soils at the site have relatively low permeabilities. The percolation tests indicate the upper, firmer clayey fine sandy silt to silty fine sand has a rate of less than 0.2 in/hr. The sandier soils below a depth of 6 ft or so have a rate of about 0.75 in/hr. In view of these low rates, and in order to provide some factor of safety for the design storm, it is recommended that the disposal facilities be designed to store the calculated runoff from the design storm in the voids of the drain rock. Normally a voids factor of about 0.4 is appropriate for coarse, rounded drain rock. Accordingly, about 2 1/2 cubic ft of rock is necessary to store 1 cubic ft of storm water.

It is recommended that the disposal trenches be a minimum of 7 ft deep (below existing ground surface) in order to expose the more permeable sandier soils in the trench bottom. The trenches should be lined with a non-woven geotextile fabric to prevent the migration of fines from the sides of the trench into the voids in the rock. The system should incorporate suitable sediment basins near the street catch basins to collect coarser materials, leaves etc from the street. Appropriate means also must be provided to prevent leaves and fir needles from the roof drains from entering the drain rock mass. These facilities will require periodic cleaning so plans for such maintenance must be instigated. The disposal trench can be any combination of depth, width and length necessary to provide the required rock volume for the computed storage. In view of the moist conditions noted in the Test Pits 4 & 7, it it recommended that the trench bottom be no more than 8 ft below present ground surface. A perforated distribution pipe should be placed just below the surface of the rock mass -- this pipe should extend the full length of the trench. An overflow pipe from the top of the rock mass should be directed toward the ravine -- the outfall area should be riprapped and planted to protect against surface erosion.

The ground surface sections shown on Plate 3 were developed to provide an indication of the slope on the side of the ravine below the proposed disposal areas. Fine grained soils on slopes steeper

than about 2H:1V could become unstable if the saturation level reaches the ground surface. Since these slopes are much flatter than 2H:1V, it is concluded that storm water ponded in the disposal systems will not reduce slope stability to an unacceptable level. One problem could be channelization of water from the disposal system by old root holes or animal burrows. In view of the erosion potential in these fine grained soils, it is recommended that the slopes below the disposal systems be monitored carefully during the first season of operation for any sign of excess water from holes on the slope.

Yours very truly,

K. C. Robbins

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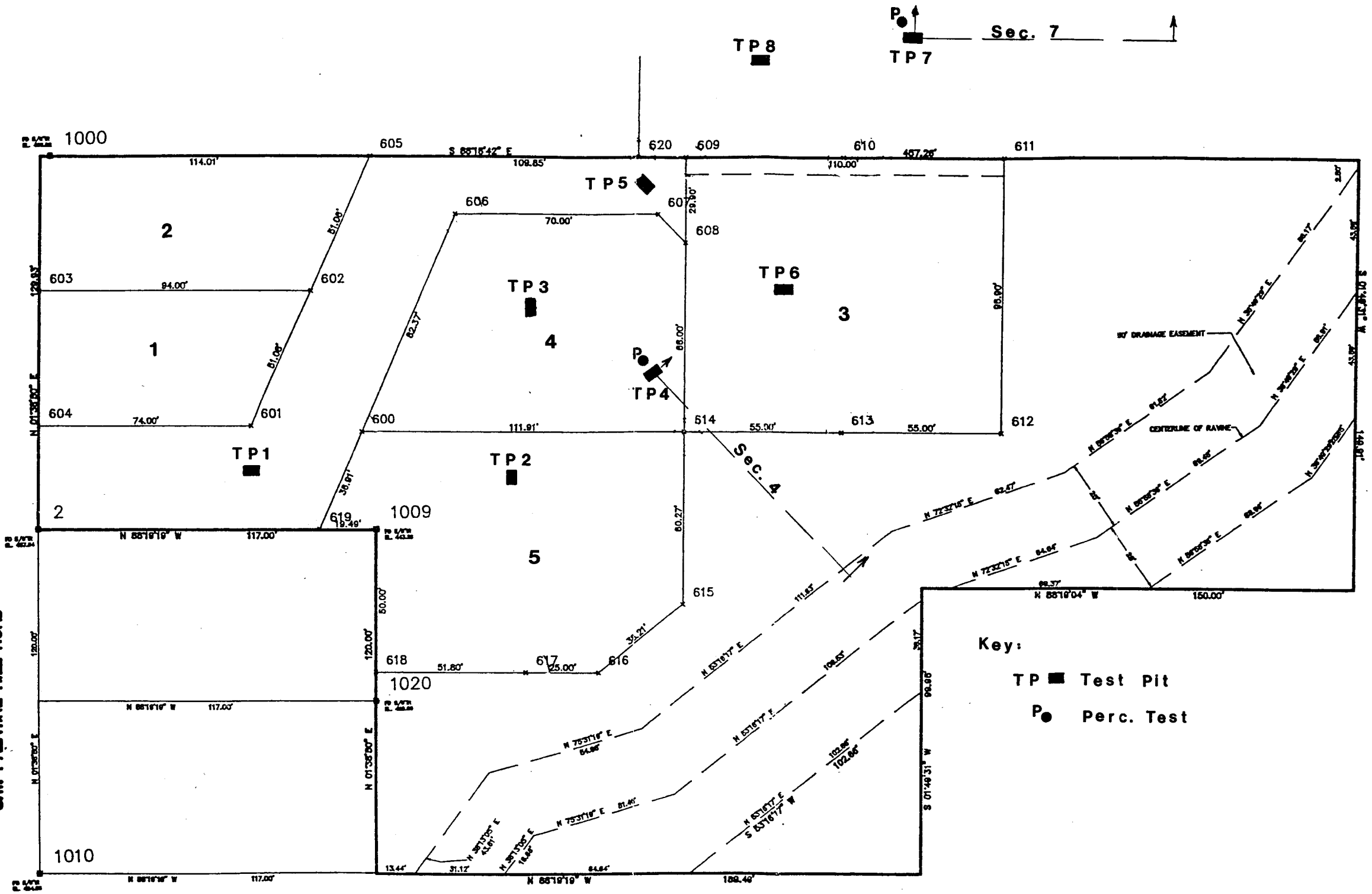
K.C. ROBBINS P.E., P.G., C.E.G.
GEOTECHNICAL CONSULTANT



PLOT PLAN

Scale: 1" = 40'

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REVISIONS BY DATE

FILE 37-07-93

BY DATE 8/27

CHECKED BY DATE

LOGS OF TEST PITS

TEST PIT #	DEPTH IN FT From	To	SOIL CLASSIFICATION
1	0	2.5	Yellowish-Brown Clayey Fine Sandy Silt (FILL)
	2.5	4.0	Dark Gray Clayey Fine Sandy Silt with Ashes (FILL)
	4.0	5.5	Yellowish-Brown Mottled with Red-Brown & Gray Clayey Fine Sandy Silt -- Very Firm Natural Soil
2	0	1.5	Dark Brown Fine Sandy Silt with Roots -- Part old Fill.
	1.5	4.0	Mottled Red-Brown, Gray & Yellow-Brown Clayey Silty Fine Sand -- Hard Natural Soil
3	0	2.0	Dark Brown Clayey Fine Sandy Silt (FILL) Loose to 18"
	2.0	4.0	Yellowish-Brown Mottled with Red-Brown & Gray Clayey Fine Sandy Silt to Fine Sandy Silt -- Hard Natural Soil.
	4.0	6.5	Yellowish-Brown Fine Sandy Silt
4	0	2.0	Dark Brown to Red-Brown Clayey Fine Sandy Silt with Roots
	2.0	6.0	Mottled Yellowish-Brown, Red-Brown & Gray Fine Sandy Silt to Silty Fine Sand -- Hard
	6.0	11.0	Yellowish-Brown Fine Sandy Silt (Becomes more moist below 9'
5	0	1.5	Dark Brown Clayey Silty Fine Sand with roots (14" topsoil)
	1.5	4.5	Mottled Yellowish-Brown and Red-Brown Clayey Fine Silty Sand -- Firm to Hard
6	0	1.0	Dark Brown Clayey Silty Fine Sand (Topsoil & Roots)
	1.0	4.5	Mottled Yellowish-Brown and Red-Brown Clayey Fine Sandy Silt to Silty Fine Sand -- Very Firm
7	0	1.0	Dark Brown Clayey Fine Sandy Silt with roots (Topsoil)
	1.0	12.5	Yellowish Brown Silty Fine Sand Grades Sandier below 7' Becomes moist below 8' and more moist at 11'
8	0	1.0	Dark Brown Clayey Fine Sandy Silt (Topsoil & roots)
	1.0	3.5	Yellowish-Brown Clayey Fine Sandy Silt -- Firm to Hard

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