

Addendum No. 2

**DATE:** January 19, 2017  
**TO:** ALL PLANHOLDERS OF THE DOWNTOWN PARKS PROJECT  
**FROM:** YAT CHO – CITY OF MORGAN HILL  
**RE:** Clarifications

Page(s) 42.

1. Section 02545, Part 2 - Products, Section E, No Fault Sport Group, LLC (909) 381-1014 and Spectra Turf 925-303-8577 are approved as substitution for Poured in Place Rubber Resilient Surfacing.
2. Replace Section 02545-Part 2, Products, Section F, with the following:
  - F. Synthetic Turf surfacing:
    1. SynLawn – PureGrass 8mm. Contact: Blaine McQuown. Phone (559)472-3453.
    2. See attached spec sheet
3. Other products are acceptable, provided they meet the minimum requirements of this specification. Contractor shall submit equal substitutions for acceptance at least five business days prior to the bidding date for review.
4. No play equipment requires CFH on the synthetic turf. Turf has its own pad and is applied directly above baserock. Please refer to details in the plans and specifications.
5. For the purposes of bidding this project, there are three sizes of boulders. They are 1.5'x1.5', 2'x2', and 3'x3', respectively.
6. The Depot Street Geotechnical Report shall be incorporated into the

appendix portion of this project's bid specification.

7. For bidding purposes, the existing street section for the Depot Street Parking Lot shall be 6" Asphalt Concrete over native material with lime treated base for 18".
8. For bidding purposes, the existing street section for West Third/Del Monte Avenue Roadway section shall be 4" Asphalt Concrete over 4" Class II Aggregate Base.
9. Section 2870, Section 2.03 – Site Furnishings Hilltop Park, the following information is to be included in referencing the gate operator and lock:
  - Swing Gate Operator (500 lbs/16 ft.): PRO-sw2000xls  
gtopro2000xls 12 Volts
  - Automatic Electric Gate Lock: GTO FM144
  - Digital Wireless Keypad (total of 2): GTO F310
  - Surface Mount Gooseneck Kit (total of 2): GTO F110
  - Single Barrier Gate: Black, HCG-S-16B-KIT-G-B HFC 4'H x 16' W S-Series
  - Hoover Fence Co. 4521 Warren Ravenna Road Newton Falls, OH 44444 (330)358-2335
10. Please revise Material callout #41 on Hilltop Park sheet L6.1 to be read as: WIRED GATE KEYPAD SURFACE MOUNTED ON GTO GOOSENECK STAND KIT. MOUNT POST TO CONCRETE FOOTING. FOOTING DIMENSIONS TO MATCH BARRIER GATE LOCK POST DETAIL G/D1.2 – REFER TO SPECIFICATIONS.
11. Fencing Clarification at Hill Top Park
  1. The replacement fence at the neighbors – Note #3 on sheet L6.1 and Detail I on sheet D1.2 is a 5' high fence with slats.
  2. The new fence note #19 on sheet L6.1 should be a 5' high chain link fence without top and bottom rails, with arms. In addition, there shall be a (3) strand barbed wire to match existing chain link fence around existing water tank. See attached chain link fence detail.
  3. 12' wide vehicular gate – Note #29 on sheet L6.1 and Detail J on sheet D1.2 is 5' high.
  4. The fences are galvanized. Contractor will be responsible to repair/repaint any portion of the fence that was damaged during installation/delivery.
12. Question: Can you please provide a detail of what is expected as a 1" Wear Mat to be installed as part of the Poured-In-Place Resilient surfacing?
  1. Attached is the detail for the Wear Mat to be installed along with a drawing noting the locations of the Wear Mat at Depot Park.

13. Replace VEHICLE BRIDGE PLAN with attached VEHICLE BRIDGE PLAN on Sheet S3.0 of the Little Llagas Creek Park.
14. The rubber mat to be installed at Hilltop Park for the fibar surfacing is not specified. Please advise.
  1. TotTurf, Local rep is Roger Hamilton at Robertson Recreational Surfaces, Phone 408-390-0671, or approved equal) The rubber mat size is 44"x48"x1". Refer for Hilltop Park G/D1.1 for detail and Material callout #36/L6.1 for locations.
15. Please add the following to Section 033300, Part 2 - Products:
  - 2.05 CULTURED STONE VENEER:
    - A. Stone facing shall be of stone veneer Model No. CSV-2081, Limestone pattern, Bucks County color, manufactured by the cultured stone by Boral Stone, telephone (800) 255-1727 web site [www.boralamerica.com](http://www.boralamerica.com). Wall caps shall be 10"x20" Flat Textured Capstone style, Taupe color.
16. Please add the following to Section 033300, Part 1 – General – 1.04 Submittals for reviews:
  - C. Cultured Stone and cap: Submittal shall include a sample of each type of stone and a sample of the cap for approval.
17. Please use the following for the Custom Train Manufacturer:  
LSI Distributor: Ross Recreation (Rep is Casey Hilbert 831-689-9110)  
Model No.: 94494-1-2

#### ADDENDUM ACKNOWLEDGMENT

Bidder acknowledges receipt of this addendum, which shall be attached to the proposal.

\_\_\_\_\_  
Contractor's Representative

\_\_\_\_\_  
Date

**THIS DOCUMENT SHALL BECOME A PART OF THE PROJECT SPECIFICATIONS**

**GEOTECHNICAL ENGINEERING INVESTIGATION REPORT  
DEPOT STREET BEAUTIFICATION PROJECT  
MORGAN HILL, CALIFORNIA**

For

Brian Kangas Foulk  
981 Ridder Park, Suite 100  
San Jose, Ca 95131



**PARIKH CONSULTANTS, INC.**  
356 S. Milpitas Blvd., Milpitas, CA 95035  
(408) 945-1011

**TABLE OF CONTENTS**

**Page No.**

INTRODUCTION ..... 1

PURPOSE AND SCOPE..... 1

PROPOSED CONSTRUCTION ..... 2

SITE CONDITIONS ..... 2

FIELD EXPLORATION..... 2

SUBSURFACE CONDITIONS ..... 3

GEOLOGY ..... 3

FINDINGS AND RECOMMENDATIONS ..... 3

    General .....3

    Grading.....4

    Drainage .....5

    Structural Pavement .....5

    Corrosion .....6

    Imported Borrow .....7

    Plan Review .....8

    Construction Observation.....9

INVESTIGATION LIMITATIONS ..... 9

PROJECT LOCATION MAP ..... Plate 1

SITE PLAN ..... Plate 2

GEOLOGY MAP ..... Plate 3

**APPENDIX A**  
Log of Test Borings

**APPENDIX B**  
Laboratory Results

**APPENDIX C**  
Core Pictures



**GEOTECHNICAL ENGINEERING INVESTIGATION REPORT  
DEPOT STREET BEAUTIFICATION PROJECT  
MORGAN HILL, CALIFORNIA**

**INTRODUCTION**

This report presents the results of our geotechnical engineering investigation for the proposed “Depot Street Beautification Project” located in the City of Morgan Hill, California. The work was performed in general accordance with the scope of work outlined in our proposal. The general location of the project site and its vicinity are shown in the Project Location Map, Plate 1.

The geotechnical recommendations presented in this report are intended for design input and are not intend to be used as specifications. Interpretation of the data provided in this report for any other purpose should be the sole responsibility of the user. In addition, these recommendations should not be used for bidding purposes or directly for construction cost estimates.

**PURPOSE AND SCOPE**

The purpose of this investigation was to provide recommendations for a new pavement design for the reconstruction of Depot Street.

The scope of work performed for this investigation included a review of the readily available soils and geologic literature pertaining to the site, obtaining representative pavement cores and bulk soil samples, logging soil materials encountered in five relatively shallow borings, laboratory testing of the collected samples, engineering analysis of the field and laboratory data, and preparation of this report.

Due to limitations inherent in geotechnical investigations, it is neither uncommon to encounter unforeseen variations in the subsurface soil conditions during construction nor is it practical to determine all such variations during an acceptable program of drilling and sampling for a project of this scope. Such variations, when encountered, generally require additional engineering services to attain a properly constructed project. We, therefore, recommend that a contingency fund be provided to accommodate any additional charges resulting from technical services that may be



required during construction.

## **PROPOSED CONSTRUCTION**

The proposed project is to reconstruct Depot Street between Main Avenue and Fifth Street in downtown Morgan Hill. The five block segment of Depot Street will include a new pavement section, bike lanes, parking lanes, landscapes, and hardscapes. Our recommendations presented in this report are based on the above information. Any major deviation should be reported to our office for further consideration.

## **SITE CONDITIONS**

Depot Street is an unfinished, six-block long street that forms the eastern boundary of Morgan Hill's downtown. It is located just west of, and parallel to the Union Pacific railroad tracks. Based on the site reconnaissance and the field exploration the existing pavement is in relatively poor condition. At some areas the pavement is extensively cracked ('alligator cracks') near the gutters and shoulders (See Appendix C). Apparently, extensive trenching has been performed along the street and the asphalt has been patched in these areas. There is no continuous sidewalk constructed along the street.

## **FIELD EXPLORATION**

Five pavement cores (C-1 through C-5) were advanced using a 10-inch diameter coring machine. The borings were then drilled to a final depth of 5 feet using an 8-inch diameter jeep mounted auger. Bulk soil samples were collected from each boring in order to perform laboratory testing.

The approximate locations of the cores/borings are shown on the Site Plan, Plate 2. The details of the field exploration and the log of borings with the description of the materials encountered are included in Appendix A. Pictures of the asphalt concrete cores are provided in Appendix C.



## SUBSURFACE CONDITIONS

The native soil below the pavement section is reddish brown clayey sand and lean clay with varying amounts of sand. Boring C-1 did encounter some gravel at the five-foot depth. Groundwater was not encountered in the boring. However, groundwater levels may vary with the passage of time due to seasonal groundwater fluctuations, surface and subsurface flows, ground surface run-off, and other factors that may not have been present at the time of our investigation.

## GEOLOGY

General geologic features pertaining to the site were evaluated by reference to the Geological Map of Santa Tereza Hills and Southwestern part of the Morgan Hill Quadrangles. Based on the publication, the site is generally underlain by alluvial fan deposits (Pleistocene). A portion of geologic map pertaining to the site is shown on Plate 3.

## FINDINGS AND RECOMMENDATIONS

### General

Based on the findings of our investigation, it is our opinion that the site is generally feasible for the planned project provided the recommendations presented in this report are incorporated into the final design and construction. Final grading plans should be reviewed by our office prior to finalizing the plans to see that the intent of our recommendations is included in the plans.

This report was prepared specifically for the proposed project as described earlier. Normal procedures were assumed for construction of the roadway throughout our analysis and represent one of the bases of recommendations presented herein. Our design criteria have been based upon the materials encountered on the site. Therefore, we should be notified in the event that these conditions are changed, so as to modify or amend our recommendations.



## Grading

Based on the site reconnaissance it appears that the proposed grade will mostly conform to the existing ground. Typical grading specifications should conform to Caltrans Standards. A representative from our office or regulatory agency should observe all grading operation and perform moisture and density tests on prepared subgrade and compacted fill material. Any fill material imported to the site should be non-expansive relatively granular material and should be reviewed by the Geotechnical Engineer or the regulatory agency.

It will be necessary to completely strip and remove all existing asphalt or buried objects, if any, and loose material within the depth of required excavations and the areas to be developed. The material from the stripping operation may be used as engineered fill if it meets the engineered fill criteria as described herein. Depressions resulting from stripping and other construction activities should be backfilled and properly compacted as discussed in the following sections.

After stripping, subgrade and areas to receive engineered fill should be excavated of any and all loose soils. The resulting surface upon which fill is to be placed should be observed by the Geotechnical Engineer. Areas receiving fill should be scarified to a depth of 6 inches, moisture conditioned and compacted as discussed below. This prepared subgrade should be sealed and kept moist before receiving engineered fill. All engineered fill shall also conform to these preparation guidelines.

### *Engineered Fill*

Engineered fill should be non-expansive and consist of relatively granular material having a P.I. of less than 15. Engineered fill within the pavement subgrade should meet the design R-value of 15.



**Brian Kangas Foulk**

Job No. 205138.10 (Depot St.)

November 2, 2005

Page 5

### *Compaction of Fill and Subgrade*

The project specific recommendations for required compaction as per ASTM D1557-02 are as follows:

- 90% for backfilling after removing buried utilities and structures, depressions caused due to other construction activities, etc.
- 90% of general roadway embankment.
- 95% for the upper 6 inches of pavement subgrade.
- 95% for Aggregate Base.

### **Drainage**

Runoff from streets, driveways, paved areas, and other impervious surfaces should be properly collected and discharged to a safe place in a manner that will not cause the surface soils to become overly saturated and will not cause erosion. This runoff is usually discharged into the local storm drains.

Final grading plans should be reviewed by our office prior to grading to see that the intent of our recommendations is included in the plans.

### **Structural Pavement**

The thickness of pavement sections are shown in the table below and the pictures of AC cores are presented in Appendix C. The AC cores appear to be medium to coarse graded and an overlay of about 2 to 2.5 inches is noticeable in core C-3.



**EXISTING PAVEMENT SECTION**

Core	Location	AC thickness (inch)	AB thickness (inch)	Total Thickness (inch)
C-1	See Site Plan	4	0	4
C-2	"	4	4	8
C-3	"	7	0	7
C-4	"	4	0	7
C-5	"	3.5	8	11.5

R-value tests were conducted on representative samples collected at subgrade level. The test results are summarized in table below. The test results are presented in Appendix B.

**SUMMARY OF R-VALUE TEST RESULTS**

Boring No.	Description	R-Value
C-1	Reddish brown clayey sand	45
C-3	Reddish brown clayey sand	55
C-5	Reddish brown lean clay, trace sand	17

Based on the test results, an R-value of 15 is selected for pavement design. The Traffic Indices (TI's) were provided by the designer. Utilizing State of California Department of Transportation design procedures (Highway Design Manual- Section – 608), the structural pavement section data for the reconstruction of Depot Street are tabulated below.

R-value	TI	Pavement Section (ft)		
		Option 1		Option 2
		AC	AB	Full depth AC
15	8	0.40	1.25	0.95

AC (Type A); Asphalt Concrete, AB (Class 2 or 3); Aggregate Base with R-value = 78.

**Corrosion**

The corrosion investigation for this project was performed in general accordance with the provisions of California Test Method 643. Representative native soil samples at the anticipated pavement subgrade were obtained for corrosion tests. A summary of the corrosion test results is



presented below.

#### CORROSION TEST RESULTS

Boring	Location	Depth (ft)	Minimum Resistivity (ohms-cm)	pH	Water-soluble Chloride (ppm)	Water-soluble Sulfate (ppm)
C-4	See Site Plan	1-5	3750	6.40	10.1	25.2

Based on the laboratory test results and as per recent internal memo from Caltrans the subsoils are not considered to be corrosive. The test results are presented in Appendix B. Standard Type II Modified cement can be used for the concrete substructures.

#### Imported Borrow

Imported material should be in accordance with the specifications set forth in Caltrans Section 19 (July 1999). In particular, for new roadway, the material placed within 1.5 ft of the finish pavement subgrade should meet the following requirements:

1. Free of organic or other deleterious materials.
2. An R-value of 15.

Aggregate Base: Class 2 aggregate base shall conform to the provisions in Section 26 of the Standard Specifications and to these Special Provisions. It shall also be clean and free from organic matter and other deleterious substances. The percentage composition by weight of Class 2 aggregate base shall conform to the following grading as determined by California Test Method No. 202.



**Gradation Requirement (Percent Passing)**

Sieve Sizes	¾ inch Maximum	
	Operating Range	Contract Compliance
1"	100	100
¾ "	90 - 100	87 - 100
# 4	35 - 60	30 - 65
# 30	10 - 30	5 - 35
# 200	2 - 11	0 - 14

**Gradation Requirement (Percent Passing)**

Sieve Sizes	1½ inch Maximum	
	Operating Range	Contract Compliance
2"	100	100
1½"	90 - 100	87 - 100
1"	-----	-----
¾ "	50 - 85	45 - 90
# 4	25 - 45	20 - 50
# 30	10 - 25	6 - 29
# 200	2 - 11	0 - 14

**Quality requirements**

California Test Method	Operating Range	Contract Compliance
Sand Equivalent (217)	25 Min.	22 Min.
Resistance (R-value) (301)	-	78 Min.
Durability Index	-	35 Min.

**Plan Review**

We recommend that final plans be reviewed by this office prior to construction so that the intent of our recommendations is included in the project plans and specifications and to further see that no misunderstandings or misinterpretations have occurred.



### Construction Observation

To a degree, the performance of any structure is dependent upon construction procedures and quality. Hence, observation of foundation excavations, observation and testing of grading operation should be carried out by our office. If the subsurface conditions differ from those forming the basis of our recommendations, this office should be informed in order to assess the need for design changes. Therefore, the recommendations presented in this report are contingent upon good quality control and these geotechnical observations during construction.

### INVESTIGATION LIMITATIONS

Our services consist of professional opinions and recommendations made in accordance with generally accepted geotechnical engineering principles and practices and are based on our site reconnaissance and the assumption that the subsurface conditions do not deviate from observed conditions. All work done is in accordance with generally accepted geotechnical engineering principles and practices. No warranty, expressed or implied, of merchantability or fitness, is made or intended in connection with our work or by the furnishing of oral or written reports or findings. The scope of our services did not include any environmental assessment or investigation for the presence or absence of hazardous or toxic materials in structures, soil, surface water, groundwater or air, below or around this site. Unanticipated soil conditions are commonly encountered and cannot be fully determined by taking soil samples and excavating test borings; different soil conditions may require that additional expenditures be made during construction to attain a properly constructed project. Some contingency fund is thus recommended to accommodate these possible extra costs.

This report has been prepared for the proposed project as described earlier, to assist the engineer in the design of this project. In the event any changes in the design or location of the facilities are



**Brian Kangas Foulk**

Job No. 205138.10 (Depot St.)

November 2, 2005

Page 10

planned, or if any variations or undesirable conditions are encountered during construction, our conclusions and recommendations shall not be considered valid unless the changes or variations are reviewed and our recommendations modified or approved by us in writing.

This report is issued with the understanding that it is the designer's responsibility to ensure that the information and recommendations contained herein are incorporated into the project and that necessary steps are also taken to see that the recommendations are carried out in the field.

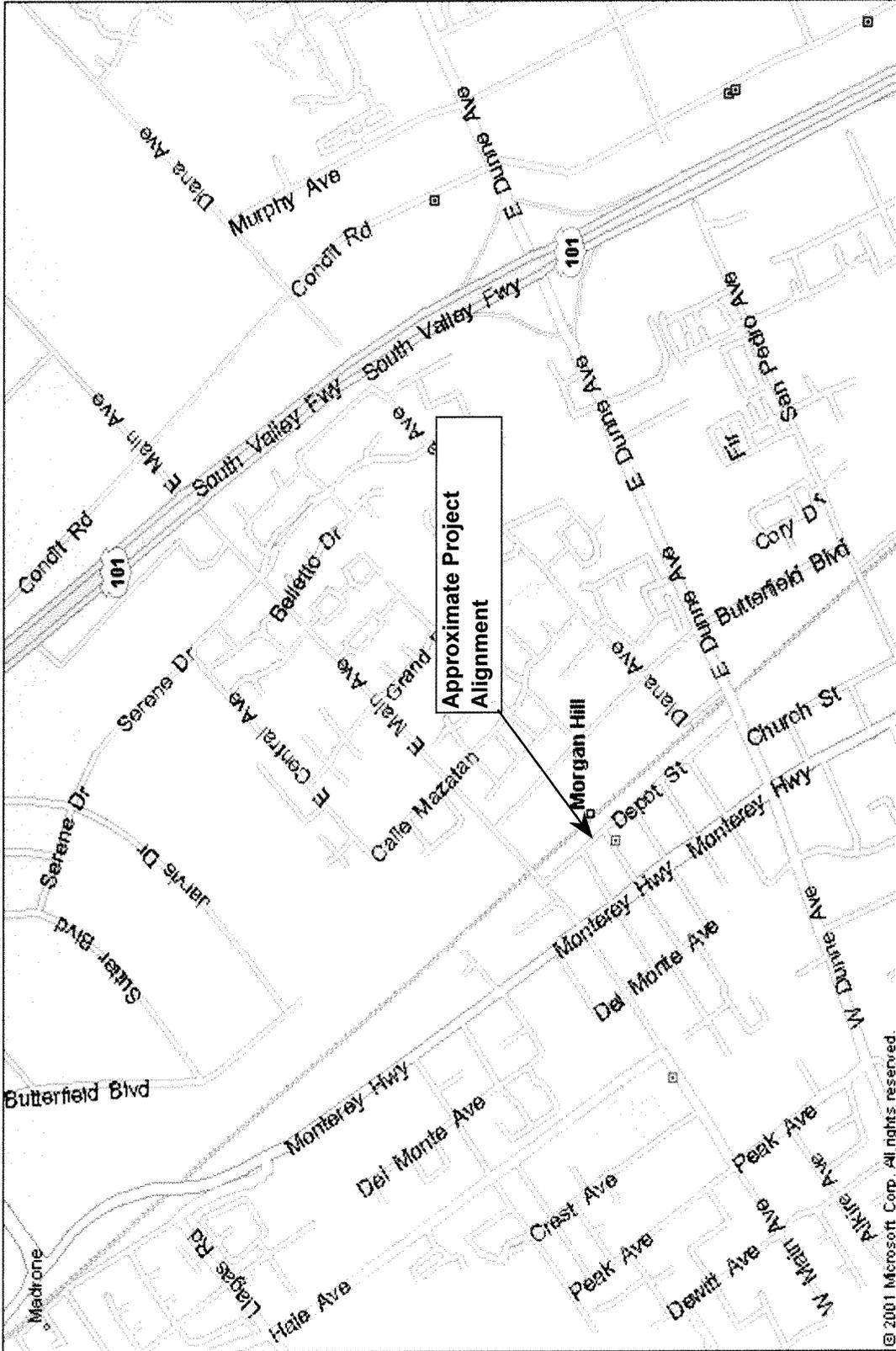
The findings in this report are valid as of the present date. However, changes in the subsurface conditions can occur with the passage of time, whether they be due to natural processes or to the works of man, on this or adjacent properties. In addition, changes in applicable or appropriate standards occur, whether they result from legislation or from the broadening of knowledge. Accordingly, the findings in this report might be invalidated, wholly or partially, by changes outside of our control.

Respectfully submitted,  
**PARIKH CONSULTANTS, INC.**

Manny Saleminik, P.E., C60597  
Project Engineer

Gary Parikh, P.E., G.E. 666  
Project Manager





**PROJECT LOCATION MAP**

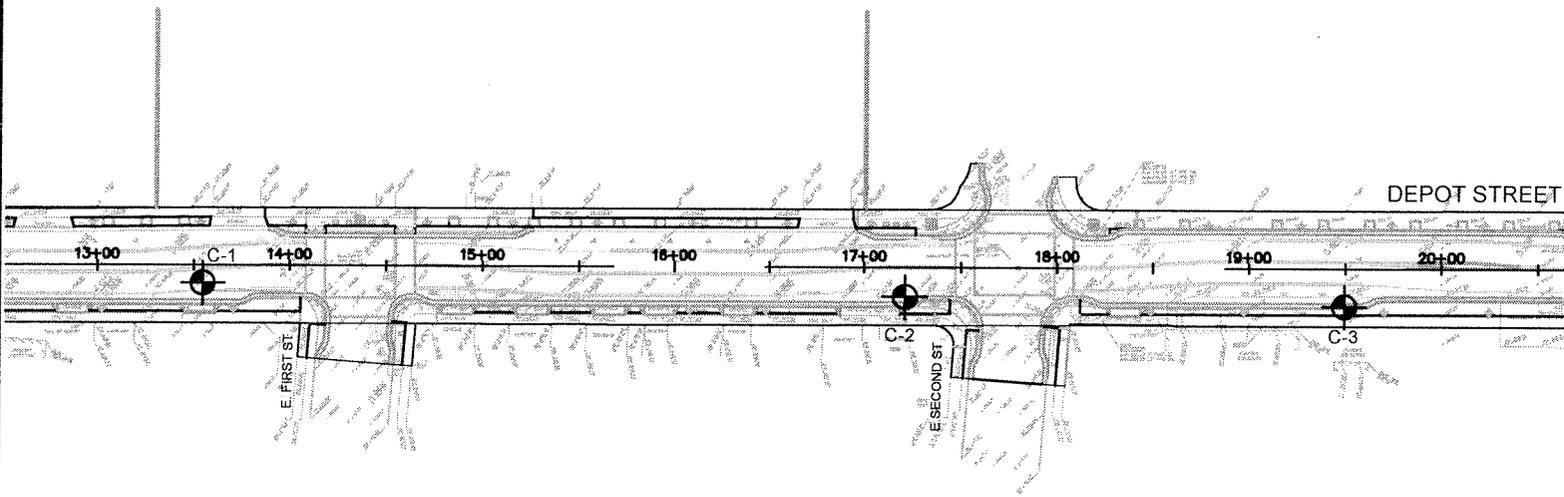
DEPOT STREET BEAUTIFICATION  
CITY OF MORGAN HILL, CALIFORNIA

PLATE: 1

JOB NO.: 205138.10

PARIKH CONSULTANTS, INC.  
GEOTECHNICAL CONSULTANTS  
MATERIALS TESTING





**LEGEND**



Approx. Boring Location

SCALE 1 inch = 100 feet

Note: All units are in feet unless otherwise specified



# APPENDIX A



Boring Location, Elevation & Date Drilled: See attached Site Plan; Elev. approx. 348.7 ft.; drilled on 9-26-05						Drilling Method: 8-inch dia. Solid Stem Auger SSA- Jeep Mounted		BORING NUMBER <b>C-1</b>	
Sample Type & No.	Dry Density (pcf)	Water Content (%)	Blows Per Foot	Compress. Strength (tsf)	Depth (ft) Soil Graph & U.S.C.S.	Sampling Method: Bulk sampling from the cuttings			Sheet 1 of 1
			-		0	Broken Asphalt Concrete - 4 inches thick			
						GRAVELLY LEAN CLAY (CL), light brown, dry (FILL)			
BULK-C1	-	-				SC	CLAYEY SAND (SC), reddish brown, dry to moist (Auger encountered gravel at 5' depth)		
					5		End of Boring at 5 feet. Groundwater was not encountered		
					10				
					15				
					20				
					25				
					30				

**LOG OF BORING**



**PARIKH CONSULTANTS, INC.**  
Geotechnical & Materials Engineering

DEPOT STREE BEAUTIFICATION PROJECT  
MORGAN HILL, CALIFORNIA

Date: NOV-2005

Job No.: 205138.10

This log is part of the report prepared by Parikh Consultants, Inc. for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Plate:

**A-2**

LB 205138.10.GPJ 11-4-05

Boring Location, Elevation & Date Drilled: See attached Site Plan; Elev. approx. 347.6 ft.; drilled on 9-26-05					Drilling Method: 8-inch dia. Solid Stem Auger SSA- Jeep Mounted		BORING NUMBER <b>C-2</b>	
Sample Type & No.	Dry Density (pcf)	Water Content (%)	Blows Per Foot	Compress. Strength (tsf)	Depth (ft) Soil Graph & U.S.C.S.	Sampling Method: Bulk sampling from the cuttings		Sheet 1 of 1
BULK-C2	-	-	-	-	0	Asphalt Concrete - 4 inches thick		LL = 24, PI = 8
					0	Aggregate Base - 4 inches thick, gray		
					0	CL	LEAN CLAY (CL), reddish brown, dry to moist, trace sand	
					5	End of Boring at 5 feet. Groundwater was not encountered		
					10			
					15			
					20			
					25			
					30			

**LOG OF BORING**



**PARIKH CONSULTANTS, INC.**  
Geotechnical & Materials Engineering

DEPOT STREE BEAUTIFICATION PROJECT  
MORGAN HILL, CALIFORNIA

Date: NOV-2005

Job No.: 205138.10

This log is part of the report prepared by Parikh Consultants, Inc. for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Plate:

**A-3**

Boring Location, Elevation & Date Drilled: See attached Site Plan; Elev. approx. 346.4 ft.; drilled on 9-26-05					Drilling Method: 8-inch dia. Solid Stem Auger SSA- Jeep Mounted		BORING NUMBER <b>C-3</b>	
Sample Type & No.	Dry Density (pcf)	Water Content (%)	Blows Per Foot	Compress. Strength (tsf)	Depth (ft) Soil Graph & U.S.C.S.	Sampling Method: Bulk sampling from the cuttings		Sheet 1 of 1
			-		0	Asphalt Concrete - 7 inches thick		
BULK-C3	-	-			0 - 5	SC	CLAYEY SAND (SC), very loose, reddish brown, moist	
					5		End of Boring at 5 feet. Groundwater was not encountered	
					10			
					15			
					20			
					25			
					30			

**LOG OF BORING**



**PARIKH CONSULTANTS, INC.**  
Geotechnical & Materials Engineering

DEPOT STREE BEAUTIFICATION PROJECT  
MORGAN HILL, CALIFORNIA

Date: NOV-2005

Job No.: 205138.10

This log is part of the report prepared by Parikh Consultants, Inc. for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.

Plate:

**A-4**

I.B. 205138.10.GPJ 11-4-05

Boring Location, Elevation & Date Drilled: See attached Site Plan; Elev. approx. 344.1 ft.; drilled on 9-26-05					Drilling Method: 8-inch dia. Solid Stem Auger SSA- Jeep Mounted		<b>BORING NUMBER</b> <b>C-4</b>	
Sample Type & No.	Dry Density (pcf)	Water Content (%)	Blows Per Foot	Compress. Strength (tsf)	Depth (ft) Soil Graph & U.S.C.S.	Sampling Method: Bulk sampling from the cuttings		Sheet 1 of 1
BULK-C4	-	-	-	-	0	Asphalt Concrete - 4 inches thick		LL = 30, PI = 14
					5	LEAN CLAY (CL), reddish brown, moist, trace sand		
					10	End of Boring at 5 feet. Groundwater was not encountered		
					15			
					20			
					25			
					30			
<b>LOG OF BORING</b>					DEPOT STREE BEAUTIFICATION PROJECT MORGAN HILL, CALIFORNIA			
 <b>PARIKH CONSULTANTS, INC.</b> <i>Geotechnical &amp; Materials Engineering</i>					Date: NOV-2005		Job No.: 205138.10	
					This log is part of the report prepared by Parikh Consultants, Inc. for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.			

LB. 205138.10.GPJ 11-4-05

Boring Location, Elevation & Date Drilled: See attached Site Plan; Elev. approx. 341.7 ft.; drilled on 9-26-05						Drilling Method: 8-inch dia. Solid Stem Auger SSA- Jeep Mounted		BORING NUMBER <b>C-5</b>	
Sample Type & No.	Dry Density (pcf)	Water Content (%)	Blows Per Foot	Compress. Strength (tsf)	Depth (ft) Soil Graph & U.S.C.S.	Sampling Method: Bulk sampling from the cuttings			Sheet 1 of 1
BULK-C5	-	-	-	-	0	Asphalt Concrete - 3.5 inches thick			
						Aggregate Base - 8 inches thick, gray			
						CL	LEAN CLAY (CL), reddish brown, moist, trace sand		
					5	End of Boring at 5 feet. Groundwater was not encountered			
					10				
					15				
					20				
					25				
					30				
<b>LOG OF BORING</b>						DEPOT STREE BEAUTIFICATION PROJECT MORGAN HILL, CALIFORNIA			
 <b>PARIKH CONSULTANTS, INC.</b> <i>Geotechnical &amp; Materials Engineering</i>						Date: NOV-2005		Job No.: 205138.10	
						This log is part of the report prepared by Parikh Consultants, Inc. for the named project and should be read together with that report for complete interpretation. This summary applies only at the location of this boring and at the time of drilling. Subsurface conditions may differ at other locations and may change at this location with the passage of time. The data presented is a simplification of actual conditions encountered.			

LB 205138.10.GPJ 11-4-05

## **APPENDIX B**

## APPENDIX B

### LABORATORY TESTS

#### **Classification Tests**

The field classification of the samples was visually verified in the laboratory according to the Unified Soil Classification System. The results are presented in, Appendix A.

#### **Atterberg Limits**

The Atterberg Limits were determined for selected samples of the fine-grained materials. These results were used to classify the soils, as well as to obtain an indication of the expansion potential with variations in moisture content. The Atterberg Limits were determined in general accordance with ASTM Test Method D 4318-93. The results of these tests are presented on Plate B-2, "Plasticity Chart".

#### **R-value Tests**

R-value tests were performed on representative bulk samples for pavement design. The tests were performed by Parikh Consultants, Inc. Testing Laboratory. The results are presented on Plates B-3.

#### **Corrosion Tests**

Corrosion tests were performed on selected samples to determine the corrosion potential of the soils. The pH and minimum resistivity tests were performed according to California Test Method 643. Sulfate and chloride tests were performed by Sunland Analytical Laboratory. The test results for water-soluble sulfate and chloride contents are presented on Plate B-4.



**PARIKH CONSULTANTS, INC.**  
**GEOTECHNICAL CONSULTANTS**  
**MATERIALS TESTING**

**DEPOT STREET BEAUTIFICATION**  
**CITY OF MORGAN HILL, CA**

**JOB NO.: 205138.10**

**PLATE NO.: B-1**





# R-VALUE REPORT

Parikh Consultants, Inc.

ASTM D2844 or CTM 301

(408) 945-1011

Project Name: Depot Street Beautification Project

Date: 10/20/05

Client: Brian Kangus Foulk

Project #: 205138.10

Sample #: C-1 Depth: 1' - 5'

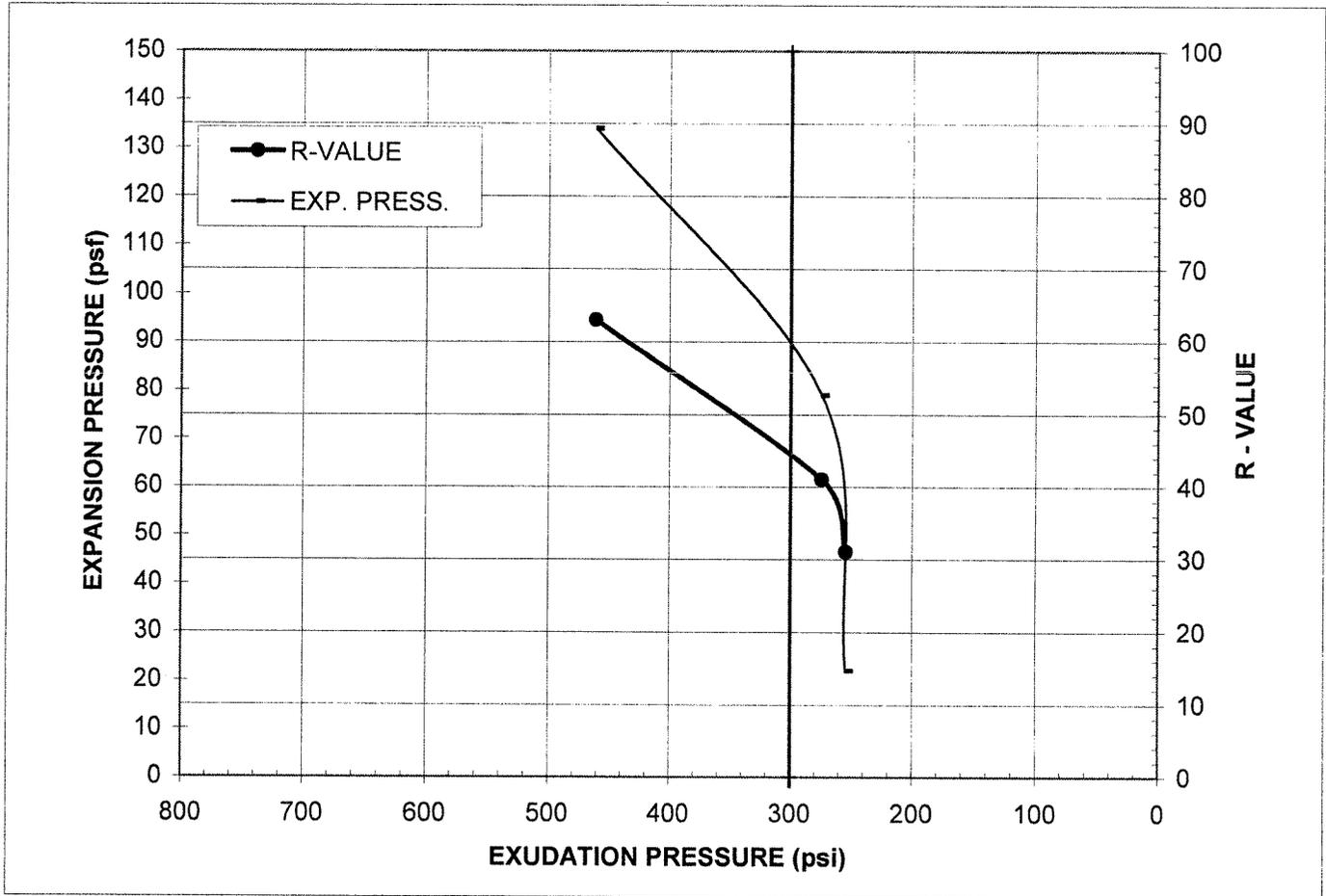
Lab #: M556

Location / Source: Native

Sample Date:

Material: Silty sand with gravels and some clay lumps, reddish brown

Sampled By:



Specimen No.	A	B	C
Exudation Pressure, psi	254	274	461
Expansion Pressure, psf	22	79	134
R-Value	31	41	63
Moisture Content at Test, %	13.8	13.2	12.4
Dry Density at Test, pcf	118.4	120.1	121.3

R-Value @ 300 psi Exudation Pressure = 45

Expansion Pressure @300 psi Exudation, psf = 90

Minimum R-Value Requirement:

Comments:

Report By: Prav Dayah

RVALUE with calcs pdp



# R-VALUE REPORT

Parikh Consultants, Inc.

ASTM D2844 or CTM 301

(408) 945-1011

Project Name: Depot Street Beautification Project

Date: 10/20/05

Client: Brian Kangus Foulk

Project #: 205138.10

Sample #: C-3 Depth: 1' - 5'

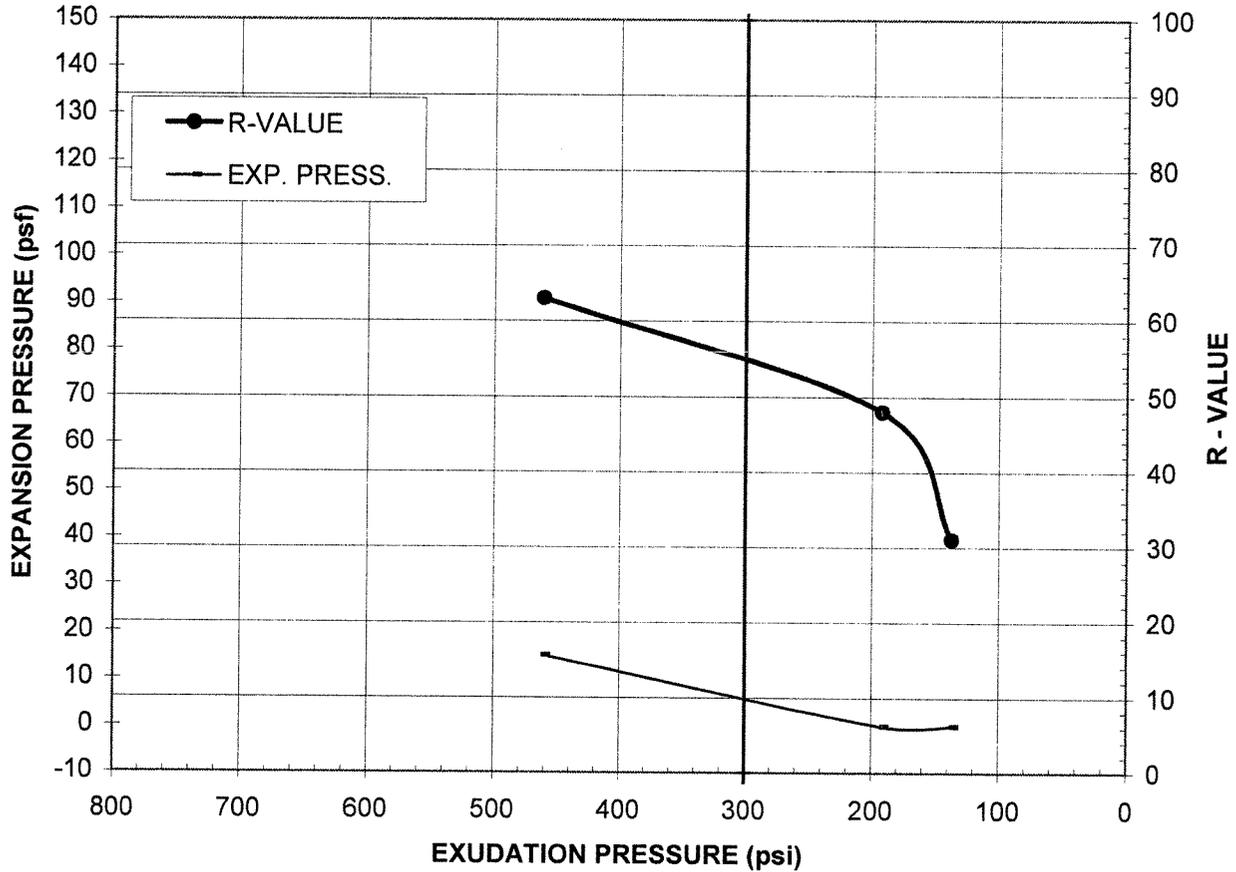
Lab #: M556

Location / Source: Native

Sample Date:

Material: Silty sand with gravel, reddish brown

Sampled By:



Specimen No.	A	B	C
Exudation Pressure, psi	137	192	461
Expansion Pressure, psf	0	0	15
R-Value	31	48	63
Moisture Content at Test, %	11.8	11.5	10.9
Dry Density at Test, pcf	121.6	121.8	122.1

R-Value @ 300 psi Exudation Pressure = 55

Expansion Pressure @300 psi Exudation, psf = 5

Minimum R-Value Requirement:

Comments:

Report By: Prav Dayah

RVALUE with calcs pdp



# R-VALUE REPORT

Parikh Consultants, Inc.

ASTM D2844 or CTM 301

(408) 945-1011

Project Name: Depot Street Beautification Project

Date: 10/20/05

Client: Brian Kangus Foulk

Project #: 205138.10

Sample #: C-5 Depth: 1' - 5'

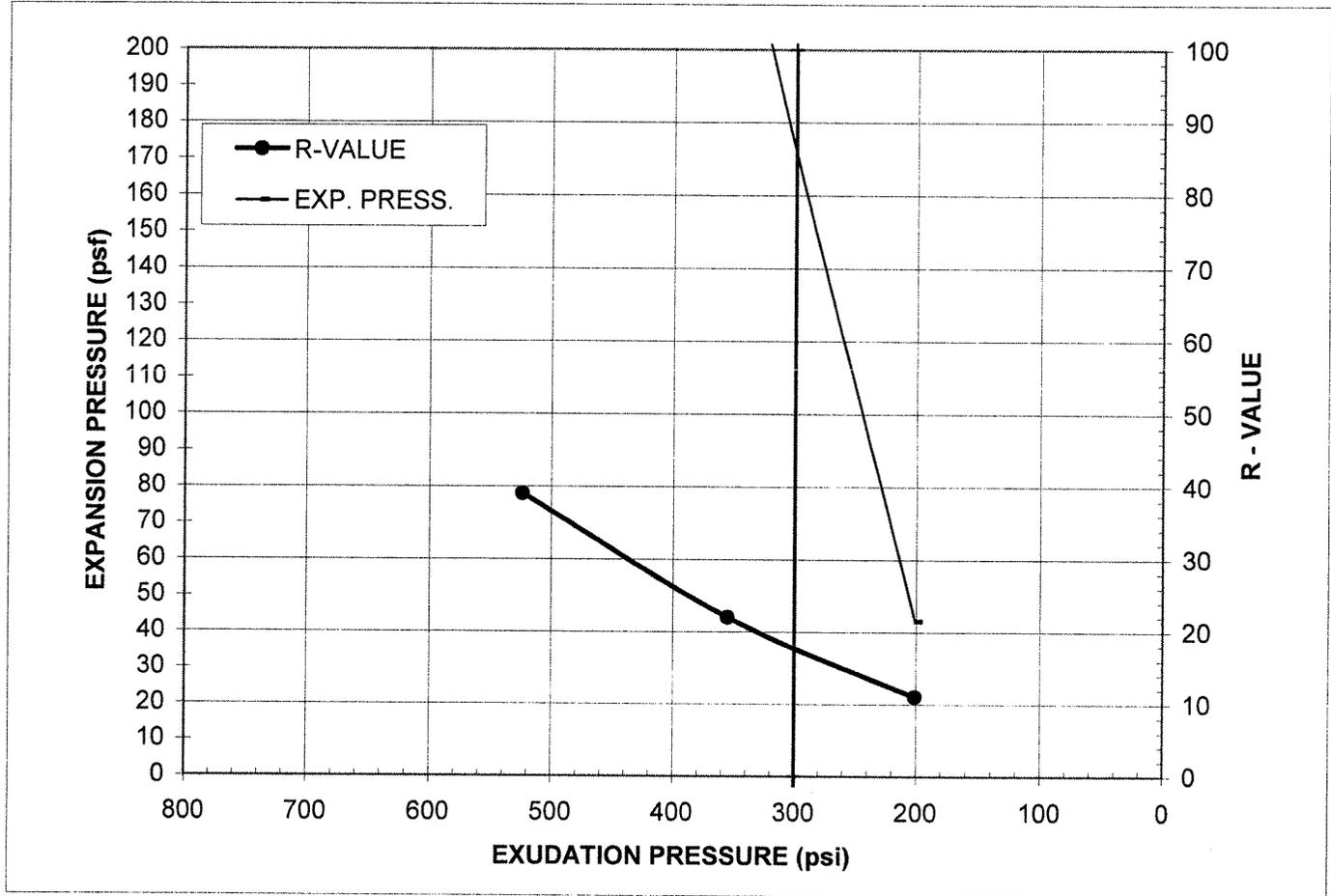
Lab #: M556

Location / Source: Native

Sample Date:

Material: Clay, brown

Sampled By:



Specimen No.	A	B	C
Exudation Pressure, psi	201	355	524
Expansion Pressure, psf	43	251	541
R-Value	11	22	39
Moisture Content at Test, %	19.7	17.7	16.2
Dry Density at Test, pcf	107.1	111.4	115.2

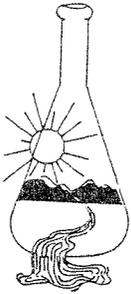
R-Value @ 300 psi Exudation Pressure = **17**      Expansion Pressure @300 psi Exudation, psf = **172**

Minimum R-Value Requirement:

Comments:

Report By: Prav Dayah

RVALUE with calcs pdp



# Sunland Analytical

11353 Pyrites Way, Suite 4  
Rancho Cordova, CA 95670  
(916) 852-8557

Date Reported 10/28/2005  
Date Submitted 10/25/2005

To: Prav Dayah  
Parikh Consultants, Inc.  
356 S. Milpitas Blvd.  
Milpitas, Ca 95035

From: Gene Oliphant, Ph.D. \ Randy Horney  
General Manager \ Lab Manager

The reported analysis was requested for the following location:  
Location : 205138.10/DEPOT STAT Site ID : C-4.

Thank you for your business.

\* For future reference to this analysis please use SUN # 46187-91422.

-----  
EVALUATION FOR SOIL CORROSION

Soil pH	6.40		
Minimum Resistivity	3.75	ohm-cm (x1000)	
Chloride	10.1 ppm	00.00101	%
Sulfate	25.2 ppm	00.00252	%

#### METHODS

pH and Min.Resistivity CA DOT Test #643  
Sulfate CA DOT Test #417, Chloride CA DOT Test #422

**APPENDIX C**



**PARIKH CONSULTANTS, INC.**  
GEOTECHNICAL CONSULTANTS  
MATERIALS TESTING

**DEPOT STREET BEAUTIFICATION PROJECT**  
MORGAN HILL, CALIFORNIA

JOB NO.: 205138.10

PLATE NO.: C-1A



**PARIKH CONSULTANTS, INC.**  
GEOTECHNICAL CONSULTANTS  
MATERIALS TESTING

**DEPOT STREET BEAUTIFICATION PROJECT**  
**MORGAN HILL, CALIFORNIA**

**JOB NO.: 205138.10**

**PLATE NO.: C-1B**



DEPOT STREET BEAUTIFICATION PROJECT  
MORGAN HILL, CALIFORNIA

**PARIKH CONSULTANTS, INC.**  
GEOTECHNICAL CONSULTANTS  
MATERIALS TESTING

JOB NO.: 205138.10

PLATE NO.: C-1C

C-3



**PARIKH CONSULTANTS, INC.**  
GEOTECHNICAL CONSULTANTS  
MATERIALS TESTING

**DEPOT STREET BEAUTIFICATION PROJECT**  
MORGAN HILL, CALIFORNIA

JOB NO.: 205138.10

PLATE NO.: C-1D



DEPOT STREET BEAUTIFICATION PROJECT  
MORGAN HILL, CALIFORNIA

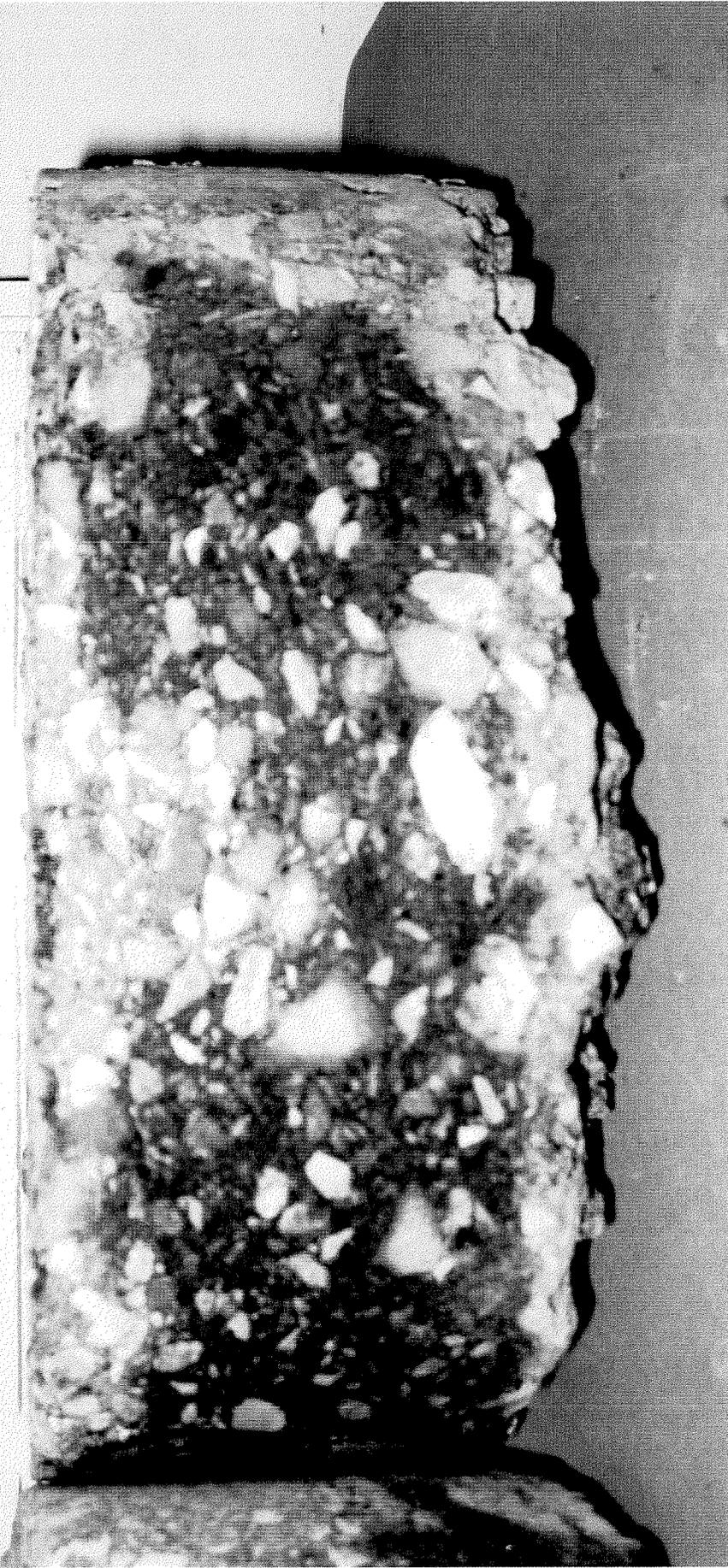
JOB NO.: 205138.10

PLATE NO.: C-1E

PARIKH CONSULTANTS, INC.  
GEOTECHNICAL CONSULTANTS  
MATERIALS TESTING



6"  
C-5



**PARIKH CONSULTANTS, INC.**  
GEOTECHNICAL CONSULTANTS  
MATERIALS TESTING

**DEPOT STREET BEAUTIFICATION PROJECT**  
**MORGAN HILL, CALIFORNIA**

**JOB NO.: 205138.10**

**PLATE NO.: C-1F**



# ASTROTURF® GAMEDAY GRASS™ 3D 52H

## MATERIALS

Primary Yarn Polymer	Polyethylene [Primary]
Yarn Cross Section	Horseshoe Monofilament
Standard Color	Field Green/Lime Green
UV Stabilized	Yes
Fabric Construction	Tufted
Secondary Yarn Polymer [Root Zone®]	100% Nylon [Secondary]
Secondary Yarn Color	Turf Green
Primary Backing	[2] 13/PIC/5 PIC Woven
Coating Type	BioCel™ Polyurethane
Polyethylene Yarn Denier / Ends	10,800 / 6
Texturized Nylon Denier / Ends [Root Zone®]	5,100/10
AstroFlect™	Available

Finish Fabric	English System		Metric System		ASTM Test F-1551
	Value	Units	Value	Units	Method
<i>Nominal Specification</i>					
Pile Height [Nominal]	2.0	In.	51	mm	D-5823
Face Weight	52	oz/yd <sup>2</sup>	1,763	g/m <sup>2</sup>	D-5848
Total Fabric Weight	86	oz/yd <sup>2</sup>	2,916	g/m <sup>2</sup>	D-5848
Primary Backing Weight	8	oz/yd <sup>2</sup>	271	g/m <sup>2</sup>	D-5848
Secondary Coating Weight	26	oz/yd <sup>2</sup>	882	g/m <sup>2</sup>	D-5848
Tuft Bind	>8	lbs.	>3.6	kg.	D-1335
Grab Tear Strength [Average]	>200	lbs.	>91	kg.	D-2256
Lead Content	<50	ppm	<50	ppm	F-2765
Total Yarn Linear Density	15,900	Denier	17,490	D-Tex	D-1577
Elongation to Break	>50	%	>50	%	D-5034
Yarn Breaking Strength	>20	lbs.	>9.1	kg.	D-5034
Yarn Melting Point	248	F°	120	C°	D-789
Stitch Rate	2.0	In.	0.80	cm	D-5793
Machine Gauge	3/8"	In.	0.95	cm	D-5793
Flammability	TEST PASSED		TEST PASSED		D-2859
Water Permeability w/ Infill	>30	In./hr	>76.2	cm/hr	F-1551
Fiber Thickness [Primary/Secondary]	9.4/3.5	mils	240 /90	microns	D-3218
Fabric Width	15	Ft.	4.6	M	None

Note: Any change from the specified values is considered a special product that will require confirmation from manufacturing. All values are ± 5%  
 AstroTurf® has the right to modify technical specifications on the above-mentioned product. Delivered products can slightly differ from the technical data.  
 AstroTurf® guarantees the technical quality of the proposed article.

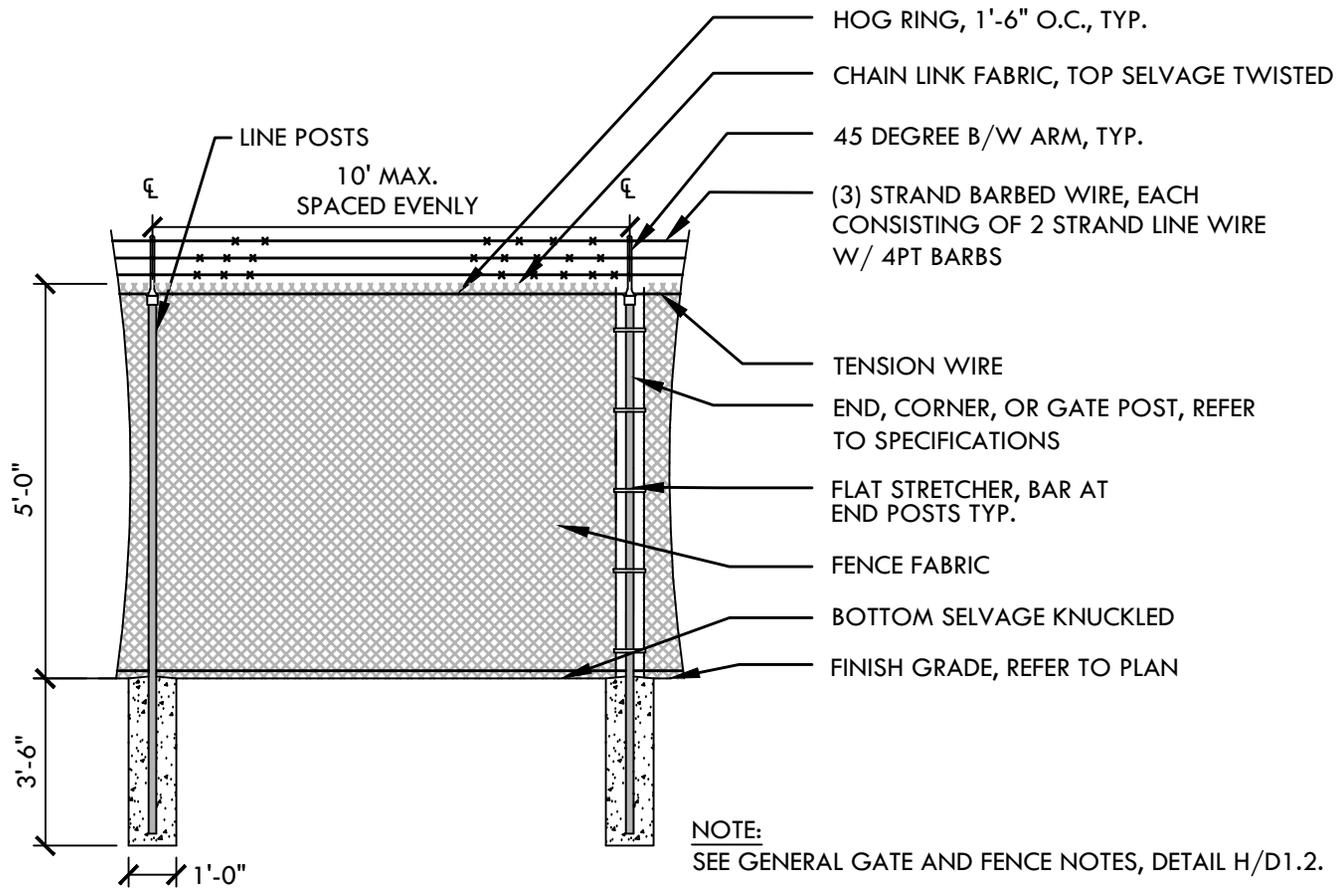
J2101201



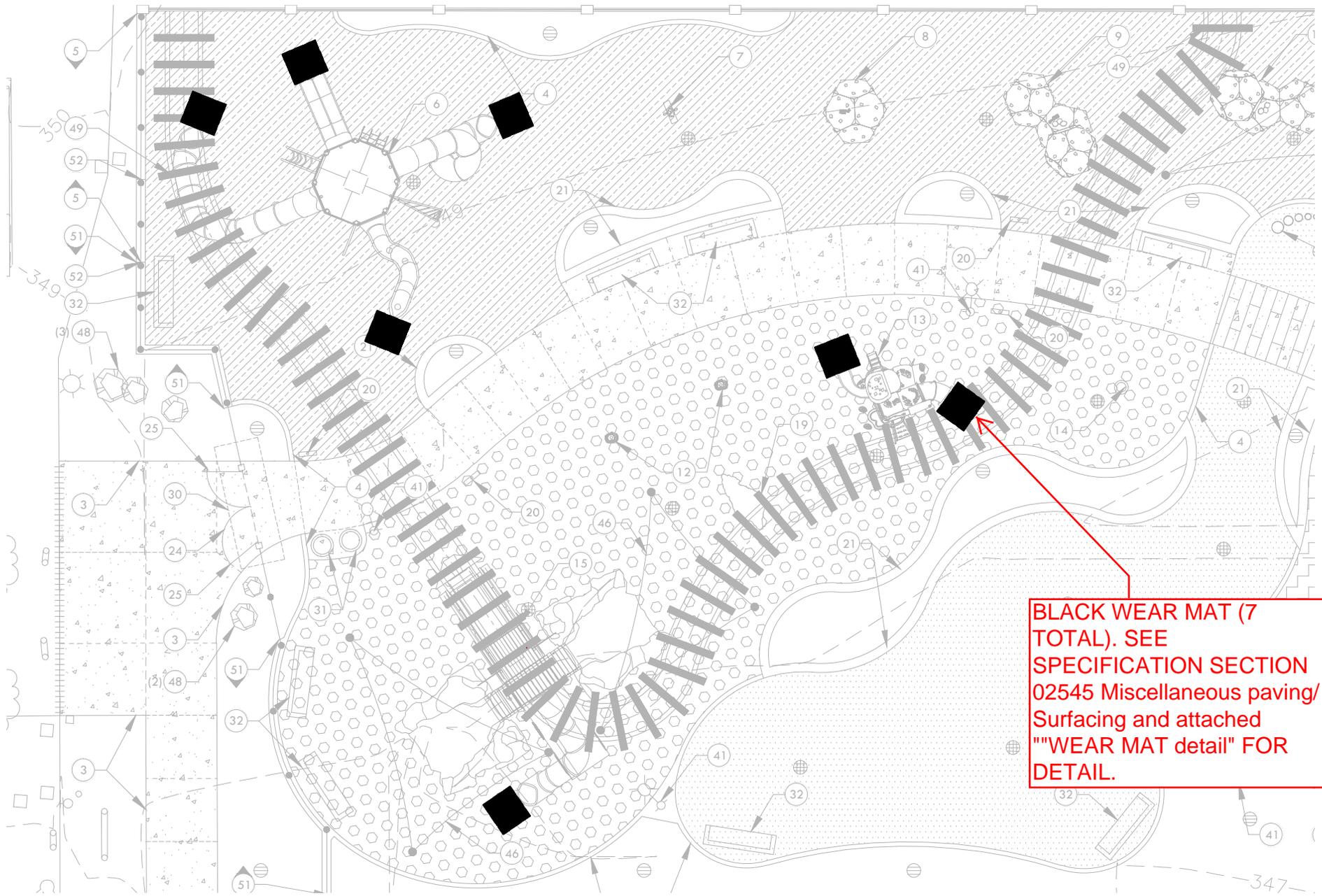
help@astroturf.com

www.astroturfusa.com

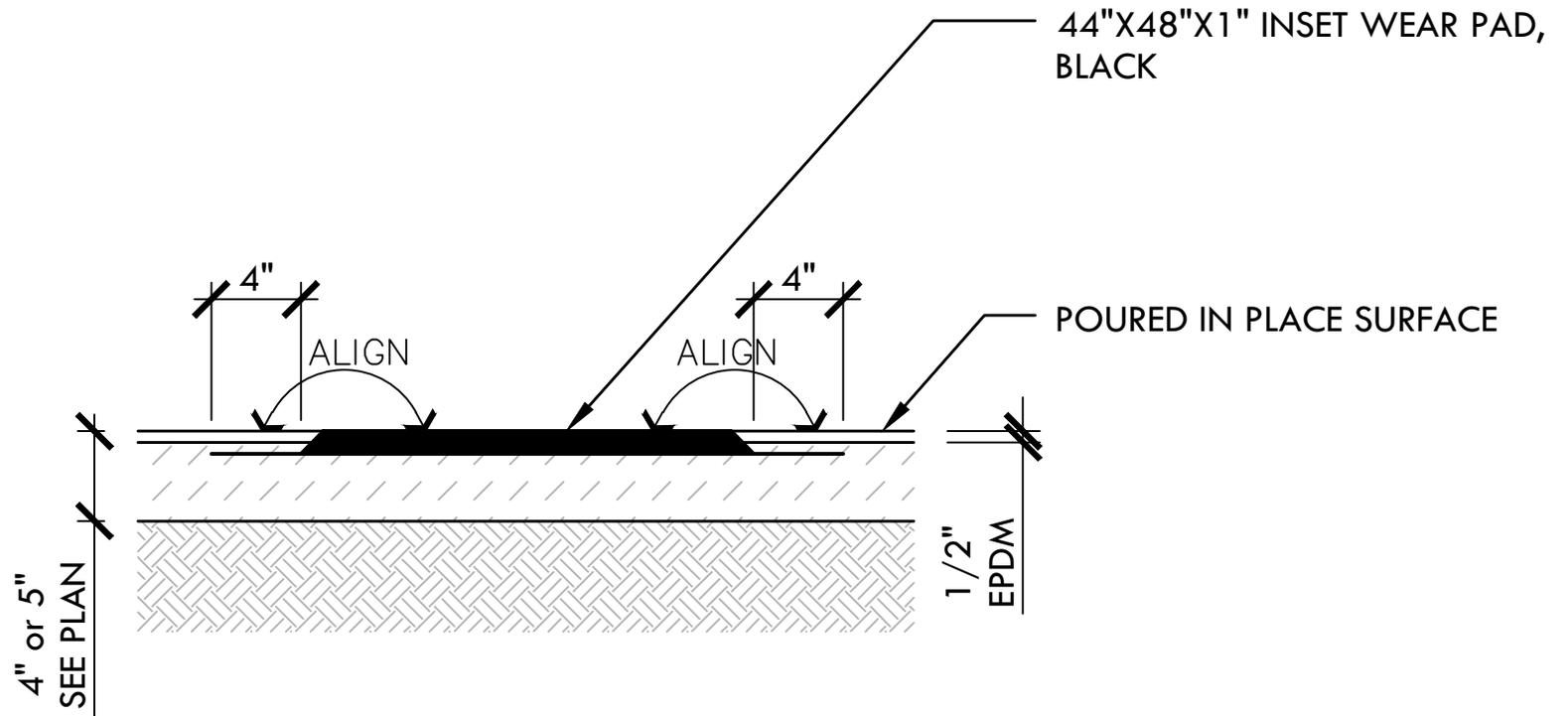
(800) 723-TURF



5'-0" TALL CHAIN LINK FENCE WITH BARBED WIRE NTS

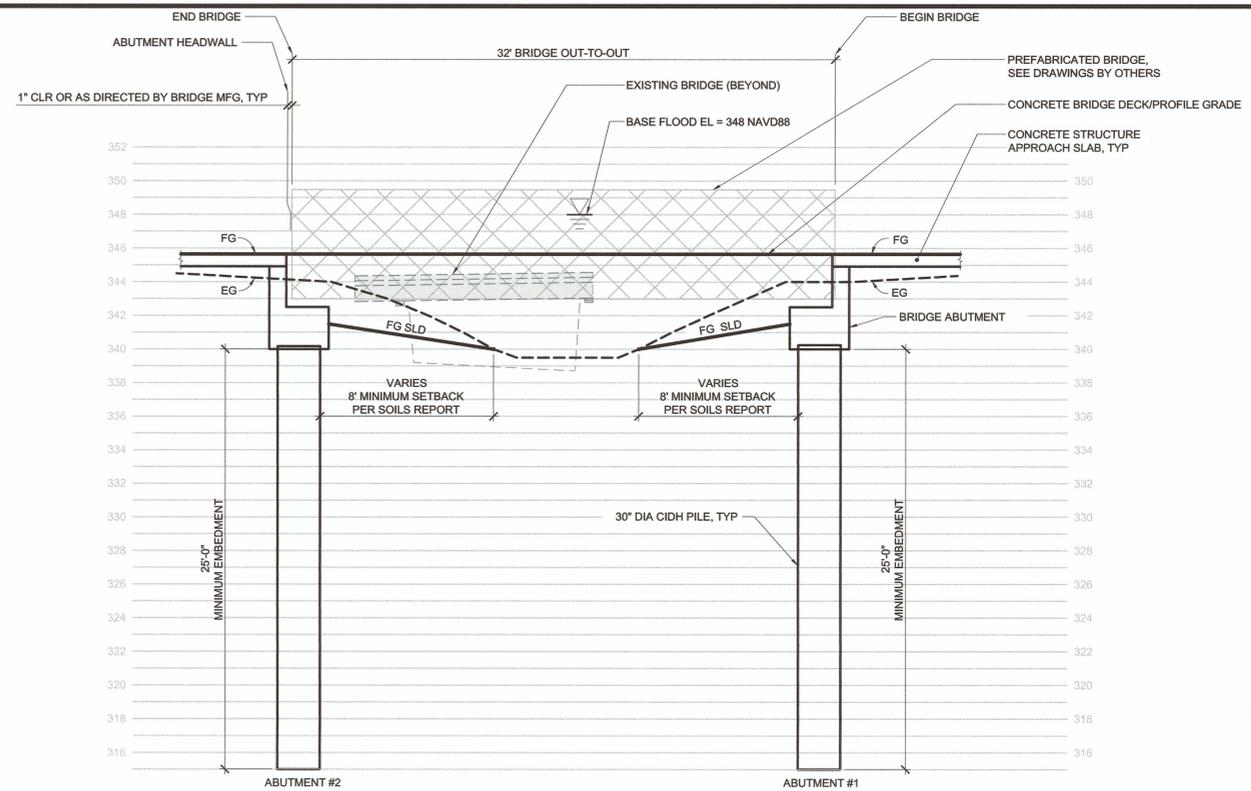


**BLACK WEAR MAT (7  
TOTAL). SEE  
SPECIFICATION SECTION  
02545 Miscellaneous paving/  
Surfacing and attached  
"WEAR MAT detail" FOR  
DETAIL.**

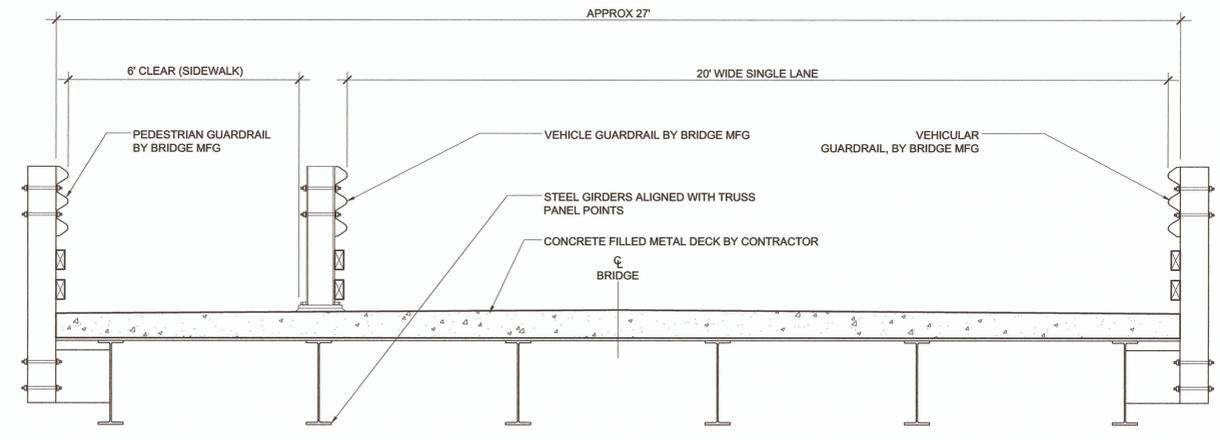


NOTES:

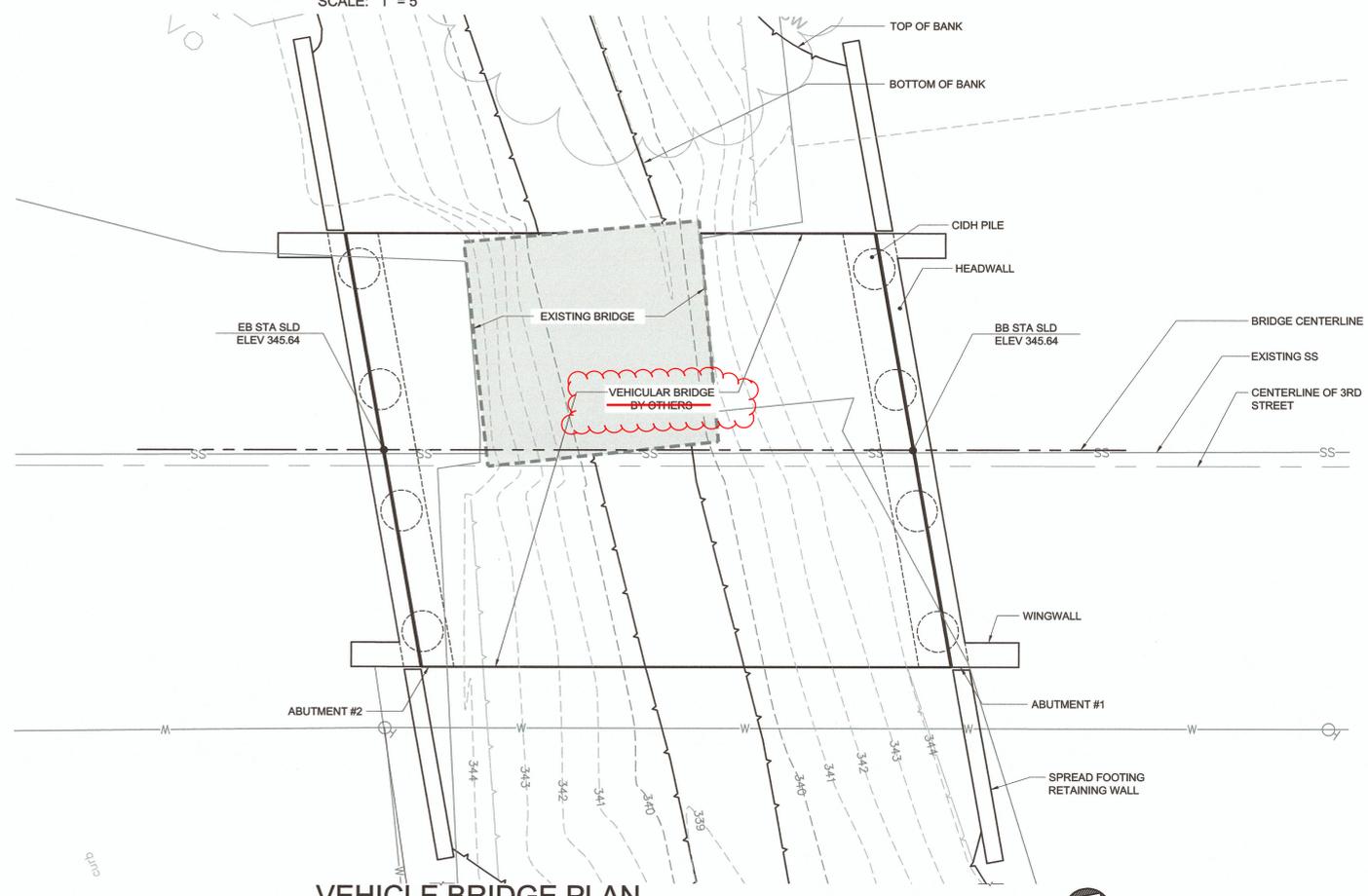
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS DETAILS SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS, FOR ILLUSTRATION PURPOSES ONLY.
3. WEAR MATS MUST BE INSTALLED UNDER ALL SLIDE EXITS TO PRESERVE WARRANTY.



**VEHICLE BRIDGE ELEVATION** (BRIDGE ELEVATIONS AND FINISHED GRADES DEPICTED ABOVE ARE BY VERDE DESIGN, INC.)  
SCALE: 1" = 5'



**VEHICLE BRIDGE SECTION**  
SCALE: 1/2" = 1'-0"



**VEHICLE BRIDGE PLAN**  
SCALE: 1" = 5'

**GENERAL NOTES**

- BRIDGE SHALL BE A PREFABRICATED STEEL GIRDER BRIDGE PER SPECIFICATIONS.
- PREFABRICATED STEEL GIRDER BRIDGE SHOWN IS A SCHEMATIC ONLY. ACTUAL BRIDGE MAY VARY. SEE SPECIFICATIONS FOR BRIDGE CAMBER NOT SHOWN.
- FINISH GRADE SHOWN IS APPROXIMATE. SEE GRADING PLANS FOR FINISH GRADE ELEVATION NEAR ABUTMENTS.
- SEE LANDSCAPE DRAWINGS FOR BRIDGE SIGNAGE.

**CONSTRUCTION NOTES**

- CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS, ELEVATIONS, CONTROLLING FIELD DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION, ORDERING AND/OR FABRICATING ANY MATERIALS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL VERIFY ALL EMBEDDED ITEM LOCATIONS WITH PREFABRICATED BRIDGE MANUFACTURER.
- SEE LANDSCAPE DRAWINGS FOR BRIDGE ALIGNMENT, LAYOUT AND SURVEY CONTROL INFORMATION.
- ALL EXPOSED CONCRETE CORNERS SHALL HAVE A CHAMFER OF 3/4" UNO.
- CONTRACTOR SHALL VERIFY BRIDGE LENGTHS FROM LOCATIONS OF NEW ABUTMENTS PRIOR TO ORDERING PREFABRICATED BRIDGE.
- TYPICAL REINFORCING DETAIL AND SPIRAL REINFORCING DETAIL ARE PROVIDED ON DETAIL 4/S5.2 AND 4/S2.2.

**ABUTMENT DESIGN CRITERIA**

**GRAVITY DESIGN CRITERIA PER 2000 CALTRANS BRIDGE DESIGN SPECIFICATIONS:**

BRIDGE DEAD LOAD	168 K
SIDEWALK LOAD	85 PSF
VEHICLE LOAD	HS20-44

**SEISMIC DESIGN CRITERIA PER SITE SPECIFIC ARS CURVE (SEE SOILS INVESTIGATION)**

**WIND DESIGN CRITERIA:**

BASIC WIND SPEED	110 MPH
WIND EXPOSURE	C

**SOIL DESIGN CRITERIA FROM SOILS REPORT BY LAI AND ASSOCIATES DATED MAY 9, 2016:**

SOIL BEARING CAPACITY	END BEARING NOT USED
SKIN FRICTION	BELOW STREAM BED EL: 600 PSF/FT
PASSIVE PRESSURE	BELOW STREAM BED EL: 300 PSF/FT ACTING ON 1.5x PIER DIAMETER, NEGLECT UPPER 3.0 FT
ACTIVE EARTH PRESSURE	45 PSF/FT
LIVE LOAD SURCHARGE	90 PSF

**ABBREVIATIONS:**

ABUT	ABUTMENT
ACI	AMERICAN CONCRETE INSTITUTE
BB	BEGIN BRIDGE
BOT	BOTTOM
CIDH	CAST-IN-DRILLED-HOLE
CL	CENTER LINE
CLR	CLEAR
CONC	CONCRETE
EB	END BRIDGE
EG	EXISTING GRADE
ELEV	ELEVATION
FG	FINISH GRADE
L/L	LAYOUT LINE
SAD	SEE ARCHITECTURAL DRAWINGS
STA	STATION
TYP	TYPICAL
T/O	TOP OF
WSE	WATER SURFACE ELEVATION
UNO	UNLESS NOTED OTHERWISE

		WORK ACCEPTED: _____	INSPECTOR: _____	DRAWN: PD/ED	DESIGN: PD/ED	HOR: AS NOTED	
				CHECKED: DH		VERT: AS NOTED	
				APPROVED: _____	DATE: _____	JOB NUMBER: 15245	
NO.		DESCRIPTION		DATE	BY	Revisions	

**City of Morgan Hill**  
Public Works Department

17575 Peak Ave. Morgan Hill, CA 95037 (408)778-6480, Fax (408)779-7236

**Mesiti-Miller Engineering, Inc.**  
Civil and Structural Engineering

831-428-3186 www.meme.com

DEL MONTE AVE  
AND WEST 3RD  
STREET,  
MORGAN HILL,  
CA 95037

**VEHICLE BRIDGE GENERAL PLAN**  
**LITTLE LLAGAS CREEK PARK**

FILE NUMBER:  
1520400

PRINT DATE:  
12/8/16

SHEET NUMBER:  
**S3.0**



BID DRAWINGS