associates environmental

August 25, 2020

Santa Ana Regional Water Quality Control Board
3737 Main Street, Suite 500
Riverside, CA 92501

Attention: William Rice

Subject: OC Reclamation, LLC

Dear Mr. Rice:

OC Reclamation, LLC is conducting an inert material backfilling operation under a grading permit to be issued by the City of Orange at 5341 E. Santiago Canyon Road, Orange, CA. The facility is submitting the following documents to apply for site-specific Waste Discharge Requirements (WDRs) and Monitoring and Reporting Program (MRP) for the facility:

1. Form 200 – Report of Waste Discharge
2. Form 401 – Application: Discharges of Dredged or Fill Material to Waters of the State (with Filing Fee)
3. Technical Report
4. CEQA Documentation
5. Summary and Description of Documents Prepared for other Agencies
6. Documents Describing Mitigation Process
   -Biological Resources Assessment
   -Habitat Mitigation Monitoring Plan
   -Low-Effect Habitat Conservation Plan

Please do not hesitate to give me a call at (714) 625-7020 with any questions.

Sincerely,

Michael R. Buckantz

Michael Buckantz
Associates Environmental

cc: Jeff Baran, OC Reclamation, LLC

associates environmental

Technical Report

for

OC Reclamation, LLC

Facility Address:

5341 E. Santiago Canyon Road
Orange, CA 92698

Prepared by:

Associates Environmental
18141 Beach Boulevard, Suite 200
Huntington Beach, CA 92648

Project No: 2777

TABLE OF CONTENTS

Attachments –	**Description**
A	Resume of Management Organization
B	Injury and Illness Prevention Plan
C	Equipment List
D	Waste Load Checking Program
E	Notice of Intent - General Permit to Discharge Storm Water Associated With Industrial Activity (WQ Order No. 2014-0057-DWQ)
F	Well Survey
G	Waste Acceptance Plans
H	Grading Plans

1.0 General Information

Property Owner:

OC Reclamation, LLC
P.O. Box 15450
Irvine, CA 92623
Contact: Jeff Baran
Telephone: (310) 784-2900
Email: jbaran@chandlerscorp.com
Type of Ownership: LLC

Resume of Operation and Management:

Operator: OC Reclamation, LLC
P.O. Box 15450
Irvine, CA 92623
Contact: Trevor Wood
Telephone: (310) 784-2900
Email: twood@Chandlerscorp.com

Refer to Attachment A for a Resume of management structure and job descriptions.

Address Where Legal Notices May be Served:

OC Reclamation, LLC
P.O. Box 15450
Irvine, CA 92623
Contact: Jeff Baran
Telephone: (310) 784-2900
Email: jbaran@chandlerscorp.com
Type of Ownership: LLC

Legal Business Name and Location:

OC Reclamation, LLC
5341 E. Santiago Canyon Road
Orange, CA 92698
Latitude/Longitude
From the Center of the Facility:
33° 48’ 43.27”N
-117° 47’ 49.90”W

Facility Information:

The site is owned and operated by OC Reclamation, LLC. The facility is an approximately 15 acre property located at 5341 E. Santiago Canyon Road, Orange, CA. It is generally located to the east of State Route 55, to the west of State Route 261, approximately two miles to the north of Chapman Avenue, on the north side of Santiago Canyon Road, between Cannon Street on the east and North Santiago Canyon Road on the west. (Refer to Figure 1 for a vicinity map and Figure 2 for an aerial map).

OC Reclamation proposes to operate an inert material backfilling operation (Grading Operation). This site is zoned Sand & Gravel Extraction District and is a former sand & Gravel excavation site. The operation intends to backfill the site with inert material to approximately natural grade.

The Assessor Parcel Numbers for the property are:

- 370-231-06
- 370-231-13
- 370-231-15
- 370-231-08

Refer to Figure 3 for an Assessor Parcel Map. Land uses within a 1 mile perimeter are: similar mining pit reclamation and residential.

Operator's Injury and Illness Prevention Plan

A copy of the Operator's Injury and Illness Prevention Plan can be found in Attachment B.

Site Operations:

Processing operations and associated activities will be conducted Monday – Friday, from 8 am to 5 pm. Operations will remain in strict compliance with County Noise and Lighting Standards.

The inert material processing operations include screens, crushers, conveyor belts, and water sprays/baghouses as required. The property shall include a processing plant, office and maintenance areas, and above ground water/fuel storage tanks.

The anticipated breakdown of material accepted per month based on historical operations at similar locations is:

Material	Tons or cubic yards per month
Mixed Inert (Concrete, Mixed Rubble, Asphalt, etc.)	4,490 cubic yards
Inert Earth Materials (dirt, soil, rock, etc.)	8,340 cubic yards

Duration of Operation

The anticipated duration of the fill is 5 years.

Accepted Materials

Material accepted at this facility is in compliance with the definition of inert material and includes the following:

- Earth, Rock, Gravel and Sand
- Fully cured asphalt
- Uncontaminated concrete
- Crushed glass
- Brick
- Ceramics
- Clay and clay products which may be mixed with rock and soil
- Plaster Products (excluding Wall/Plasterboard)
- Tile/Porcelain
- Encased Metal
- Stucco

The facility will not accept plasterboard, drywall, and other gypsum containing materials. In addition, the facility will not accept any liquid waste including sluice material and drilling muds.

Placement of Materials

In accordance with the grading plan inert materials are spread on land in lifts and compacted under controlled conditions to achieve a uniform and dense mass which is capable of supporting structural loading, as necessary or supporting other uses such as recreation, agriculture and open space in order to provide land that is appropriate for an end use consistent with approved local general and specific plans (e.g., roads, building sites or other improvements) where an engineered fill is required to facilitate productive use(s) of the land. Filling above the surrounding grade shall only be allowed upon the approval of all governmental agencies having jurisdiction. The engineered fill shall be constructed and compacted in accordance with all applicable laws and ordinances and in accordance with specifications prepared and certified at lease annually by a Civil Engineer, Certified Engineering Geologist or similar professional licensed by the State of California and maintained in the operating record of the operation. The operator shall also certify under penalty of perjury, at least annually, that only approved inert debris has been placed as engineered fill and specifying the amount of inert debris placed as fill.

Refer to Figure 4 for a copy of the process flow diagram and Figure 5 and 6 for the Phase I and Phase II Site Plans.

Quantities of Material

The anticipated amount of inert debris accepted will be approximately 2,962 cu yd per week, 12,833 cubic yard per month and 154,000 cubic yard per year.

Water Use

Water sources at the site are metered city water and rainfall that has accumulated in the abandoned mining pit is also used for dust suppression.

Planned Method of Treatment and Disposal of Any Wastewater
No wastewater will be created on site as part of the grading operation, therefore, treatment and disposal of wastewater is not applicable.

Peak Loading

In accordance with the waste load checking program, unusual peak loads will be met with extra inspectors to insure that only proper materials are accepted. The property will maintain a large enough staging area so as to not create any overflow onto public roads or cause any interference with other operations or public access.

Description of Equipment

Description of all backfill operation equipment is provided as Attachment C, including processing, stationary and mobile equipment.

Planned Method of Storage and Removal of Salvaged Material

Salvaging of materials, such as metal, is only conducted by on site personnel, and is done in a planned and controlled manner. No salvaging by outside persons or companies will be allowed. Salvaged materials shall be placed for storage in a specified, clearly identifiable area segregated from the working fill. An example of material salvaged is metal (e.g. rebar, piping), which is picked out of the loads by site attendants and placed in dedicated roll-off containers for removal from the site within 30-60 days.

Description of Road Building and Seasonal Tipping Pad Design

Description of Road Building
All external roads necessary are built, while all internal roads will be constructed as needed. A description of the actual roads and their maintenance is discussed in the Compliance with State Minimum Standards section.

Seasonal Tipping Pad Design
The design will be determined by the on-site engineer for best possible compaction and durability as required by the LEA for the fill project.

Site Map

Refer to Figure 5 and Figure 6 for detailed site maps.

Program to Prevent the Acceptance of Unapproved Materials and Hazardous Wastes

This facility is not a MSWLF and will not allow any hazardous material onto the site under any circumstance. Moreover, if any material is subject to question, a hand held organics "sniffer" will be used to identify any organic hazardous or toxic materials. Loads with anything deemed hazardous or unacceptable will be reloaded onto the truck and escorted off the property. The grading project will not accept nor will it process hazardous materials under any circumstance.

More details are provided in the waste load checking program, included as Attachment D.

Planned Method for Storage and Removal of Prohibited Waste

See the waste load checking program in Attachment D.

Compliance with Industrial General Permit

The facility has coverage under the General Permit to Discharge Storm Water Associated with Industrial Activities (WQ Order No. 2014-0057-DWQ). The WDID for the facility is 830I026802. Refer to Attachment E for a copy of the Notice of Intent.

2.0 Site Condition Information

Climatology

The Western Regional Climate Center rainfall summarized data from 1902-2003 in Orange, CA. The mean Precipitation for this time period was 12.61 in/yr. The lowest precipitation/month was 0 inches and occurred several times during that timeframe. The highest precipitation/month was 14.85 inches and occurred in February of 1998.

The 85th Percentile 24 hour Storm Event for this area is 0.85 in.

Geology

The regional geologic overview from the Reeves Pit SWAT which is located adjacent to the pit states that the surrounding topography consists of the flat-lying floodplain which is along the base of the Santa Ana Mountains. The vicinity of the landfill site is underlain by the Tertiary Vaqueros-Sespe and Topanga Formations along with Quaternary terrace deposits, alluvium and colluvium.

Groundwater

The facility is situated on the floodplain of the Santiago Creek. It is located in the main ground-water recharge area of the Orange County Coastal Basin, also known as the Forebay Area. Groundwater monitoring at the surrounding landfills indicate the depth to groundwater is 270 ft-msl.

Wells

There are no water wells on the subject property. Refer to Attachment H for a well survey of the area.

FEMA

According to Federal Emergency Management Agency (FEMA) Firm Map Panel 06059C0166J dated December 2009, the site is situated in a Regulatory Floodway. The site is adjacent to Santiago Creek within FEMA's Zone AE and X area designation which identifies the site to have the potential for flood hazard for the 100-year (0.1% annual chance) and 500-yr (0.2% annual chance) storm events based on flood peak discharge of 12,000 cfs.

There have been subsequent approved hydrologic studies prepared by the Army Corp of Engineers (ACOE) and County that has since reduced the flood peak discharge to 6,000 cfs with the construction of Villa Park Dam upstream of this reach of Santiago Creek. This reduction in the peak discharge warrants a revision to the regulatory floodway in this area of Santiago Creek. To remove and remap the regulatory floodway in this area of the site, the project proposes to process a Letter of Map Revision (LOMR) with the City of Orange and FEMA to obtain approval for the modification to the regulatory floodway. This approval shall be obtained prior to the issuance of a grading permit for the proposed site grading.

Water Bodies

Santiago Creek is adjacent to the property.

3.0 Design Information

Surfaces

Refer to the Phase I and Phase II Grading Plans in Attachment H. **Water and**

Wastewater Management Plan

There is no process wastewater generated from the Grading/Backfill Operation.

4.0 Site Operations and Monitoring Information

Annual Survey

The site will be inspected in September of every year by the Operations Manager of OC Reclamation, LLC to ensure the site has been graded for the rainy season. During the inspection the facility will be inspected for areas of settling and graded flat as necessary to prevent ponding on-site. In addition, OC Reclamation will ensure that the following are met:

- Surface water shall not be allowed to flow over the existing other than incidental rainfall and irrigation. Inspection will include natural slopes, terraces, top of slope berms, etc. to ensure alterations (if any) have not prevented run-off from being expediently directed to approved disposal areas and away from the tops of slopes.
- Surface drainage is continuously maintained throughout the year and is inspected quarterly as detailed below to ensure that it is kept in a non-erosive manner.
- If any grading or new construction occurs at the pit, then the site Geotechnical Engineer will inspect to insure that the top of slope berms are constructed and compacted and properly maintained. The drainage patterns shall be maintained throughout the life of the proposed development.
- The Operations Manager or his designee observes the site during heavy precipitation and documents any gullying or ponding. Corrective Action is completed as soon as possible and documented after the rain event is complete.

Inspection Program

OC Reclamation, LLC will implement an inspection program at the subject site to maintain the integrity of the site. In addition to the annual survey, the Operations Manager at OC Reclamation will monitor the site quarterly by a visual inspection of the site to assess and evaluate the site for evidence or erosion, ponding, or surface failures such as cracking, spilling, or subsidence.

Maintenance Program

The maintenance program will consist of filling and compacting cracks and eroded areas with materials compatible to the original grading. OC Reclamation staff will fill localized depressions with the appropriate type of final material and grade to drain. No analytical methods exist to accurately estimate potential site settlement.

Operations

The site will be operated and maintained so as not to create a public nuisance. The following conditions and procedures are met to keep the operation from being a nuisance:

1. Visual Aesthetics- Because of the topography, the majority of the site and operation is not visible to most neighbors,
2. Fugitive Dust
3. Noise
4. Litter
5. Vector and Birds

This facility is not a MSWLF and will not allow any hazardous material onto the site under any circumstance. Moreover, if any material is subject to question, a hand held organics "sniffer" will be used to identify any organic hazardous or toxic materials. Loads with anything deemed hazardous or unacceptable will be reloaded onto the truck and escorted off the property. The facility will not accept nor will it process hazardous materials under any circumstance.

More details are provided in the waste load checking program, included as Attachment D.

Wet Weather

There are no containment systems in the backfill operating areas. Storm water runoff at the facility is directed into the inactive area of the pit as shown on the Site Plan.

5.0 Waste Acceptance Procedures

Waste Load Checking Program

Refer to Attachment D for a copy of the facility's Waste Load Checking Program that ensures compliance with the WDRs and Title 27, Section 20870, and is designed to prevent the acceptance, deposition or disposal of hazardous wastes, or any other prohibited, unauthorized, or unapproved waste or materials at the facility.

Waste Acceptance Plan

Refer to Attachment J for a copy of the proposed soil acceptance documents for the facility.

6.0 Site Closure Information

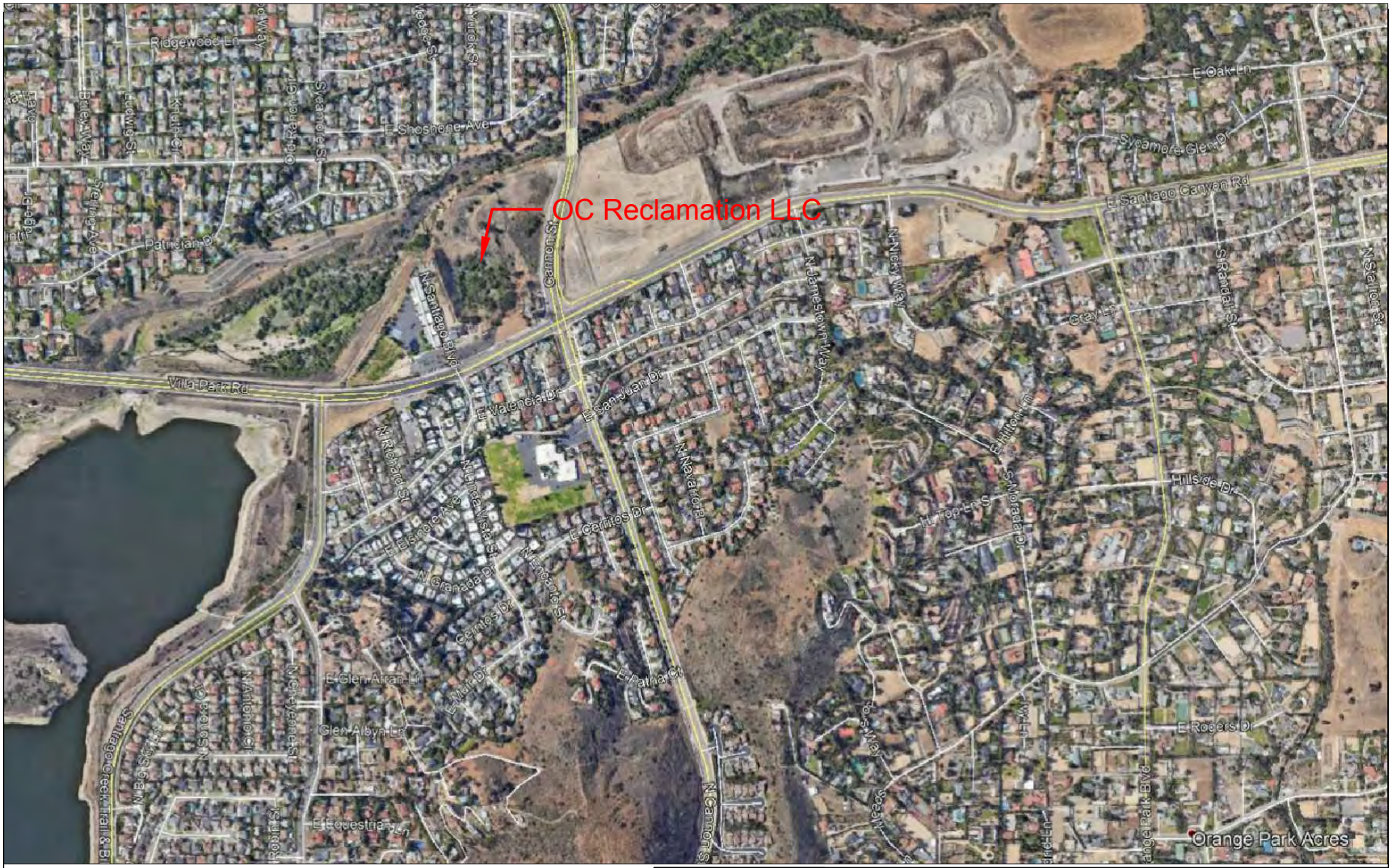
The site will be filled in accordance with the approved grading plans to street level. The grading plans are in the approval process with the county. Operations will not begin until final plans are approved.

Figures

Source: Census 2000 Data, The CaSIL, FCS GIS 2013.

Associates Environmental
18141 Beach Boulevard, Suite 200
Huntington Beach, CA 92648
(949) 352-4941 Fax (714) 362-9085

Description	OC Reclamation, LLC Vicinity Map		
Job No.	Drawing Date	Drawn By:	Drawing Version
2277	10-30-2019	JF	1.0



N

Associates Environmental
18141 Beach Blvd, Suite 200
Huntington Beach, CA 92648
(949) 352-4941 Fax (714) 362-9085

Description: OC Reclamation, LLC
Vicinity Map

Job No.	Drawing Date	Drawn By:	Drawing Version
2277	10-30-2019	MS	1.1

N

associates environmental

Associates Environmental
18141 Beach Blvd, Suite 200
Huntington Beach, CA 92648
(949) 352-4941 Fax (714) 362-9085

Description: OC Reclamation, LLC
Figure 2 - Aerial Map

Job No.	Drawing Date	Drawn By:	Drawing Version
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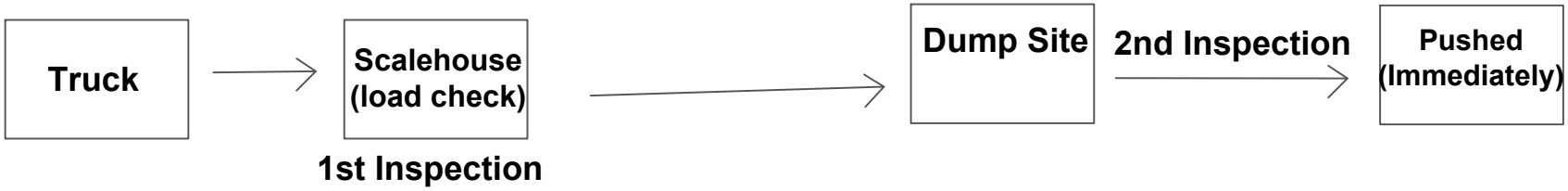


Total Truck Time On Site Is 8-10 Minutes

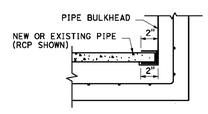
Figure 5

Associates Environmental
18141 Beach Blvd. Suite 200
Huntington Beach, CA 92648
(714) 916-4953 Fax (714) 362-9085

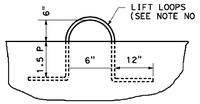
Description: OC Reclamation, LLC			
Secondary Description: Block Flow Diagram			Scale
Job No.: 3509	Drawing Date: 04-25-2019	Drawn By: MS	1.0

PHASE 1 CONSTRUCTION NOTES

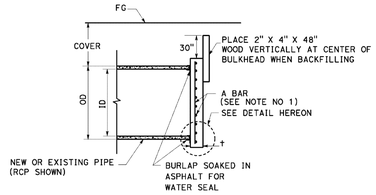
(1)	REMOVE EX. CHAINLINK FENCE	985	L.F.
(2)	CONSTRUCT 36" 1/4 TON GROUTED RIP RAP	25	S.F.
(3)	CONSTRUCT 36" 1/4 TON GROUTED RIP RAP CHANNEL PER DETAIL HEREON	1,150	S.F.
(4)	CONSTRUCT 42" R.C.P. (2000-D)	230	L.F.
(5)	CONSTRUCT PIPE CULVERT HEADWALL INLET STRUCTURE PER DETAIL ON SHEET 2.	1	EA.
(6)	INSTALL TEMPORARY CONCRETE BULKHEAD PER DETAIL HEREON	1	EA.
(7)	SLOPE TO BE STABILIZED PER SOILS ENGINEER RECOMMENDATION	–	–
(8)	INSTALL TERRACE DRAIN PER CITY OF ORANGE STD. 333	560	L.F.
(9)	CONSTRUCT CONCRETE COLLAR PER CITY OF ORANGE STD. 320	1	EA.
(10)	CONSTRUCT 4" A.C. OVER 4" A.B.	2,785	S.F.
(11)	REMOVE EX. PAVEMENT.	4,925	S.F.



WATER SEAL DETAIL
PERMANENT APPLICATION



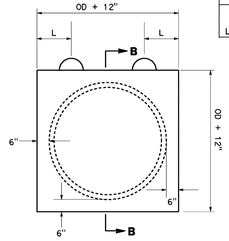
LIFT DETAIL



SECTION B-B

I. D.	COVER (ft)	t (in)	A BARS BOTH WAYS	L , P (in)
48"	4	4	#5 @ 10"	18"
OR	9	4	#5 @ 6"	
LESS	>15	5	#5 @ 6"	

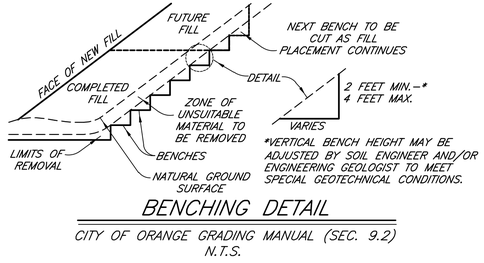
NOTES:
1. REINFORCEMENT STEEL SHALL BE CENTERED IN BULKHEAD WITH HORIZONTAL "A" BARS TOWARDS OUTSIDE FACE OF BULKHEAD
2. LIFT LOOPS SHALL BE WOVEN STEEL CABLE WITH SAME MIN. DIAMETER (d) AS "A" BARS. WEAVE CABLE THROUGH HORIZONTAL "A" BARS. COAT EXPOSED POTION OF CABLE LIFT LOOPS WITH BITUMINOUS PAINT PRIOR TO BACKFILLING TRENCH
3. BULKHEAD SHALL BE CONSTRUCTED OF MINOR CONCRETE.



FRONT VIEW
PIPE BULKHEAD
(TEMPORARY)

6 TEMPORARY CONCRETE BULKHEAD

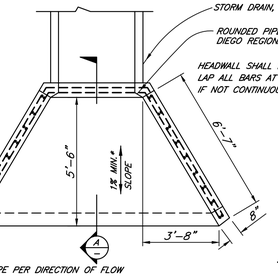
N.T.S.

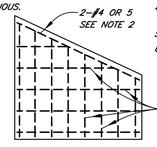


*VERTICAL BENCH HEIGHT MAY BE ADJUSTED BY SOIL ENGINEER AND/OR ENGINEERING GEOLOGIST TO MEET SPECIAL GEOTECHNICAL CONDITIONS.

BENCHING DETAIL

CITY OF ORANGE GRADING MANUAL (SEC. 9.2)
N.T.S.

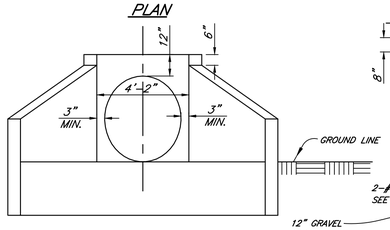




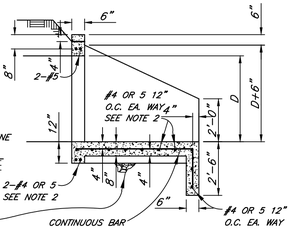
REINFORCING DETAIL

NOTES:
1. HEADWALL SHALL BE CONSTRUCTED OF CLASS A CONCRETE.
2. REINFORCING STEEL SHALL BE NO. 4 BARS FOR "W" UP TO 60". ABOVE "W"=60" NO. 5 BARS SHALL BE USED. 2" MIN. CLEARANCE, 30 DIA. LAP, ALL STEEL.
3. ADJACENT SLOPES SHALL BE 1-1/2 TO 1 OR FLATTER.
4. MULTIPLE PIPES TO BE SET WITH LONGITUDINAL CENTERS 1-2/3 DIA. APART.
5. ALL EXPOSED CORNERS TO BE ROUNDED 3/4" RADIUS.
6. W SHALL BE INCREASED WHEN MULTIPLE PIPES OR PIPES ON SKEW ARE USED.

PLAN



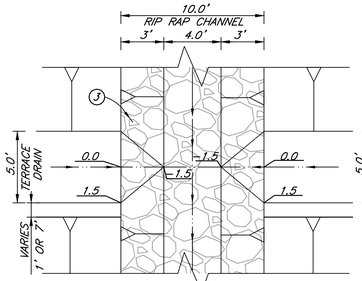
ELEVATION



SECTION A-A

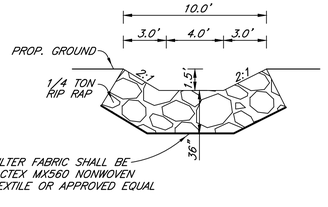
5 INLET HEADWALL DETAIL

NOT TO SCALE



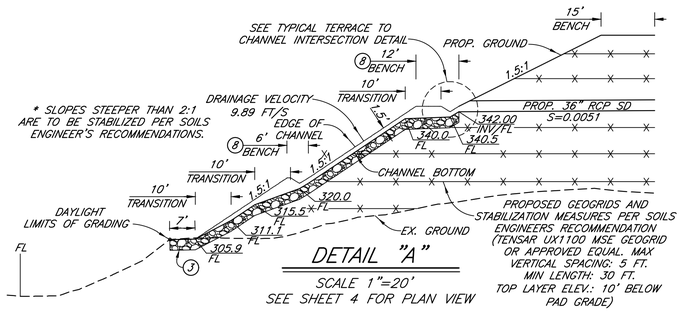
TERRACE TO CHANNEL INTERSECTION DETAIL

SCALE 1"=5'



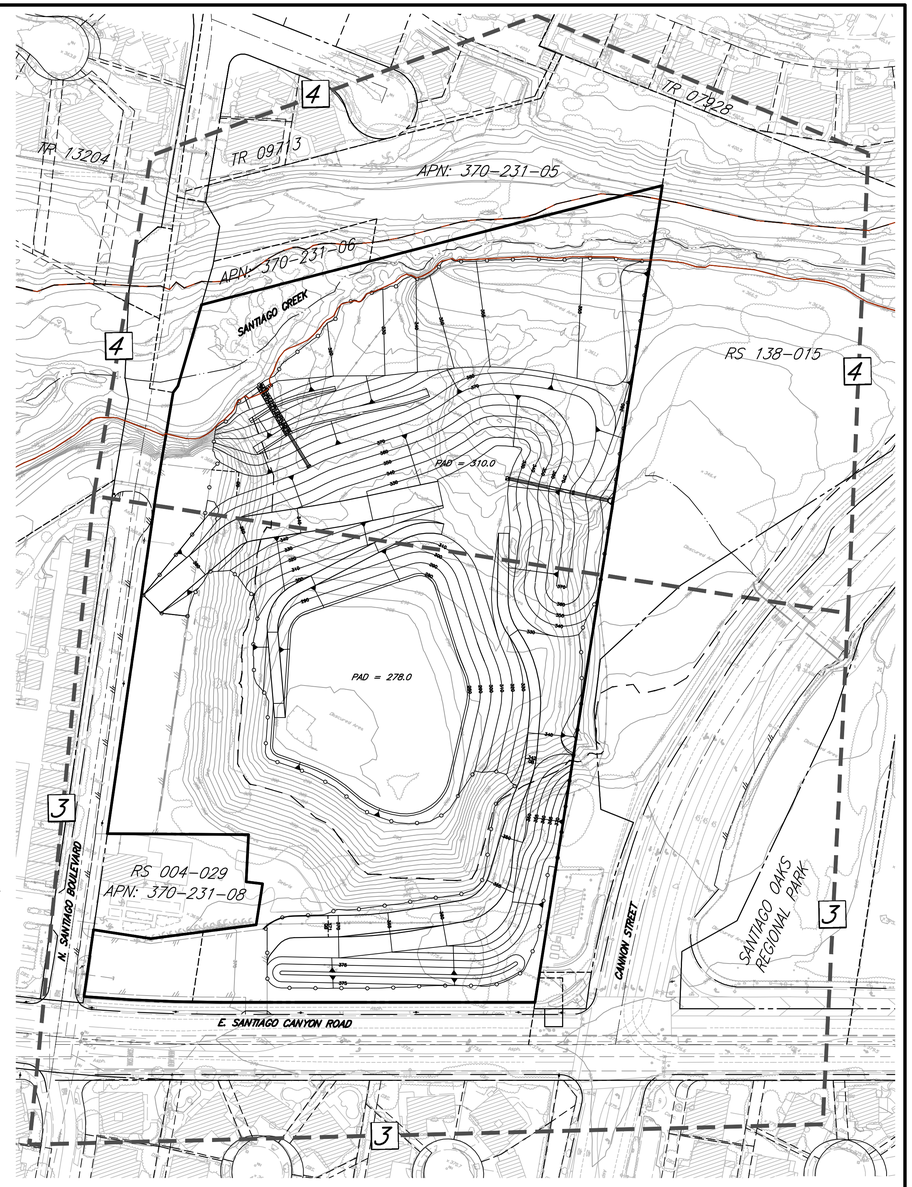
3 RIP RAP CHANNEL DETAIL

SCALE 1"=5'



DETAIL "A"

SCALE 1"=20'
SEE SHEET 4 FOR PLAN VIEW



INDEX MAP

SCALE: 1"=100'

ABBREVIATIONS:

AB	AGGREGATE BASE	EL	ELEVATION	PB	PULL BOX
AC	ASPHALTIC CONCRETE	EX	EXISTING	P.I.P.	PROTECT IN PLACE
AV	AIR VAC	EOP	EDGE OF PAVEMENT	PVI	POINT OF VERTICAL INTERSECTION
BC	BEGIN CURVE	FG	FINISHED GRADE	PVMT	PAVEMENT
BO	BLOW OFF	F/H	FIRE HYDRANT	R/W	RIGHT OF WAY
BCR	BEGIN CURB RETURN	FL	FLOWLINE	S	SANITARY SEWER (SIZE AS NOTED)
BVC	BEGIN VERTICAL CURVE	FS	FINISHED SURFACE	SMH	SEWER MANHOLE
CB	CATCH BASIN	G	GAS LINE (SIZE AS NOTED)	STA	STATION
℄	CENTERLINE	GB	GRADE BREAK	SW	SIDEWALK
C&G	CURB AND GUTTER	HP	HIGH POINT	TB	TRAFFIC BOX/ TRAFFIC FIBER BOX
CONC.	CONCRETE	INV	INVERT	TC	TOP OF CURB
DIA.	DIAMETER	L	LENGTH OR LENGTH OF ARC	W	WATER LINE (SIZE AS NOTED)
DWY	DRIVEWAY	LP	LOW POINT	WM	WATER METER
EC	END CURVE	MH	MANHOLE	WV	WATER VALVE
ECR	END CURB RETURN	ℙ	PROPERTY LINE	( )	EXISTING ITEM
EVC	END VERTICAL CURVE	PP	POWER POLE		

LEGEND:

- EXISTING RIGHT OF WAY
- EXISTING PARCEL LINES
- CENTERLINE
- EXISTING FENCE
- EXISTING CURB AND GUTTER
- EXISTING EDGE OF PAVEMENT
- EXISTING CONCRETE EDGE
- EXISTING SEWER
- EXISTING WATER
- EXISTING STORM DRAIN
- EXISTING GAS LINE
- EXISTING ELECTRICAL CONDUIT
- EXISTING TELEPHONE CONDUIT
- PROP. RIGHT OF WAY
- PROPERTY LINE
- EXISTING WALL
- PROPOSED CURB AND GUTTER
- EXISTING STREET LIGHT
- EXISTING POWER POLE/ TELEPHONE POLE
- TOP/TOE SLOPE
- DAYLIGHT/GRADING LIMITS
- CUT/FILL LINE
- EXISTING FLOODPLANE BOUNDARY
- PROPOSED FLOODPLANE BOUNDARY
- EXISTING CREEK FLOWLINE

INDEX MAP LEGEND:

- INDICATES PLAN SHEET NUMBER FOR PHASE 1
- INDICATES PLAN SHEET LIMIT

100' 0 100' 200'
SCALE: 1"=100'

1ST PLAN CHECK SUBMITTAL

Underground Service Alert
DIG BEFORE YOU DIG
Call: TOLL FREE
811
TWO WORKING DAYS BEFORE YOU DIG

KWC ENGINEERS
CIVIL ENGINEERS • PLANNERS • SURVEYORS
1880 COMPTON AVENUE, SUITE 100 • CORONA, CA. 92881-3375 • 951-734-2130

REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARNETT No.78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS			
No.	Date	Description	Approved

NOT TO SCALE

BENCH MARK
OC 31-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=10' SCALE

CITY OF ORANGE
ROUGH GRADING PLANS
QUANTITIES, INDEX, AND LEGEND

Drawing No.
Sh 2 of 6

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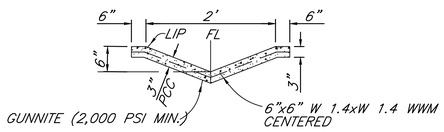
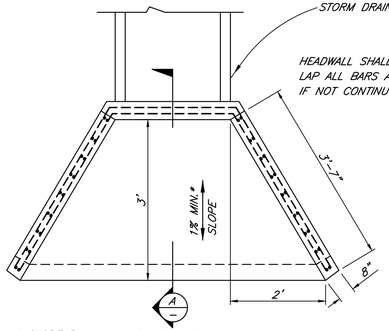
PHASE 2 CONSTRUCTION NOTES

20	CONSTRUCT DESILTING BASIN & RISER PER CITY OF ORANGE STD. 337 & DETAIL ON SHEET 4.	1	EA.
21	CONSTRUCT 42" R.C.P. (SEE PROFILE FOR D-LOAD AND CLASS) PIPE BEDDING PER CITY OF ORANGE STD. 327	385	L.F.
22	REMOVE EXISTING BLOCK WALL	280	L.F.
23	REMOVE EXISTING PAVEMENT	43,500	S.F.
24	CONNECT TO EXISTING STORM DRAIN WITH A CONCRETE COLLAR PER CITY OF ORANGE STD. 320	2	EA.
25	CONSTRUCT 24" R.C.P. (2000-D) PIPE BEDDING PER CITY OF ORANGE STD. 327	8	L.F.
26	CONSTRUCT JUNCTION STRUCTURE TYPE 1 PER CITY OF ORANGE STD. 313	3	E.A.
27	CONSTRUCT 3' GUNNITE BROW DITCH PER DETAIL ON SHEET 2	568	L.F.
28	CONSTRUCT 12" H.D.P.E. DR17. TRENCHING AND BEDDING PER DETAIL ON SHEET 5	917	L.F.
29	REMOVE EXISTING CONCRETE COLLAR OR BULKHEAD	2	EA.
30	CONSTRUCT PIPE CULVERT HEADWALL INLET STRUCTURE PER DETAIL ON SHEET 2.	1	EA.

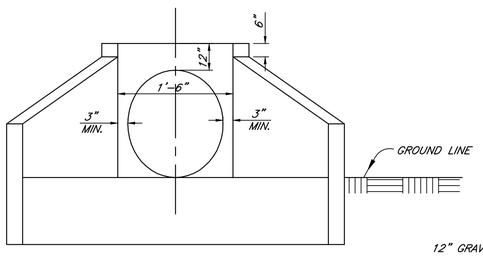


27 GUNNITE BROW DITCH
N.T.S.

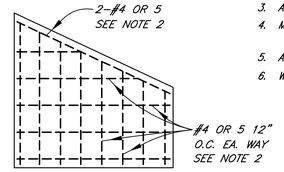


* SLOPE PER DIRECTION OF FLOW

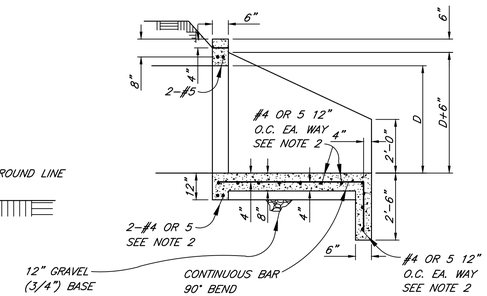
PLAN



ELEVATION



REINFORCING DETAIL

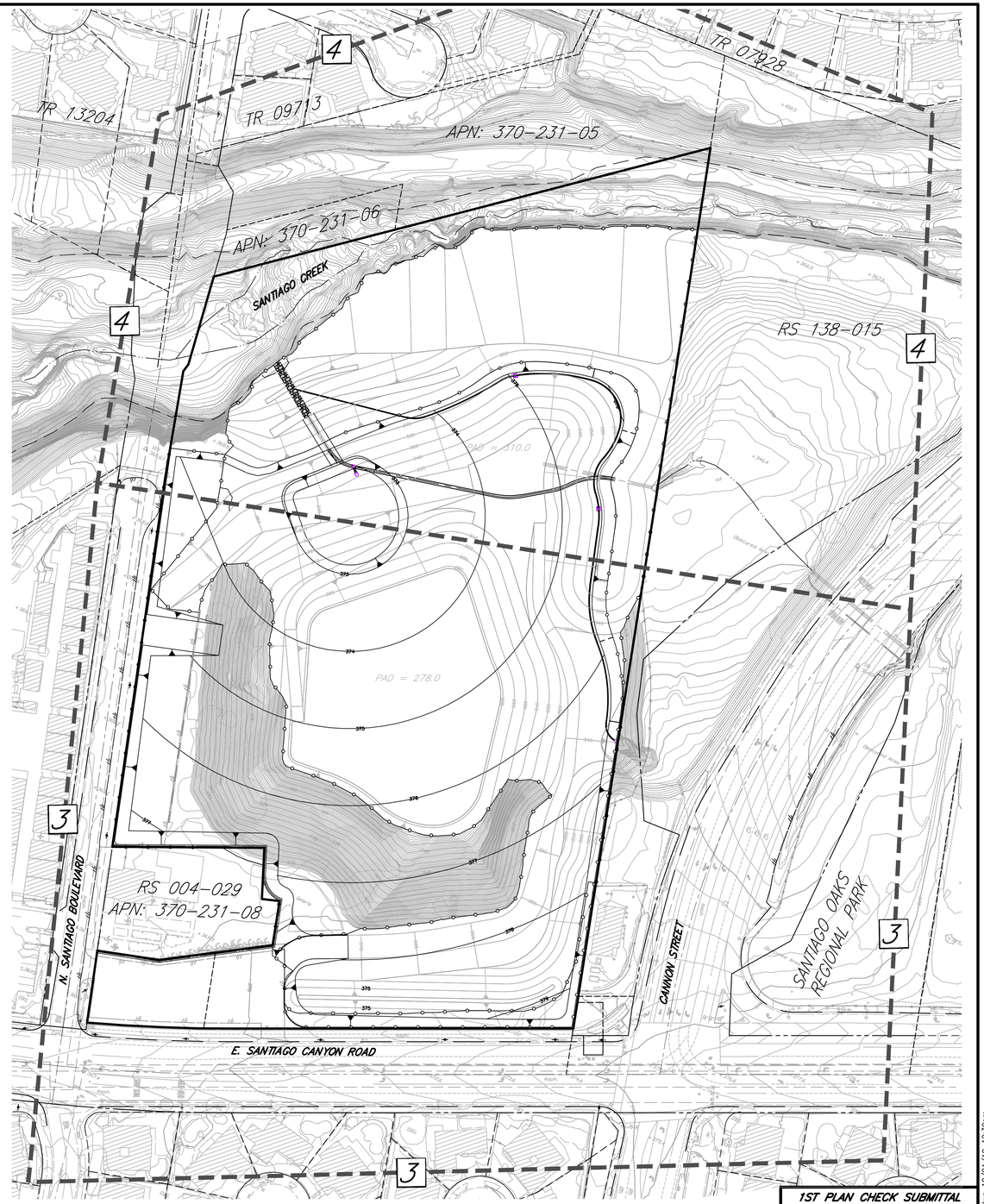


SECTION A-A

30 INLET HEADWALL DETAIL
NOT TO SCALE

NOTES:

1. HEADWALL SHALL BE CONSTRUCTED OF CLASS A CONCRETE.
2. REINFORCING STEEL SHALL BE NO. 4 BARS FOR "W" UP TO 60". ABOVE "W"=60" NO. 5 BARS SHALL BE USED. 2" MIN. CLEARANCE, 30 DIA. LAP, ALL STEEL.
3. ADJACENT SLOPES SHALL BE 1-1/2 TO 1 OR FLATTER.
4. MULTIPLE PIPES TO BE SET WITH LONGITUDINAL CENTERS 1-2/3 DIA. APART.
5. ALL EXPOSED CORNERS TO BE ROUNDED 3/4" RADIUS.
6. W SHALL BE INCREASED WHEN MULTIPLE PIPES OR PIPES ON SKEW ARE USED.



INDEX MAP
SCALE: 1"=80'

80' 0 80' 160'
SCALE: 1"=80'

INDEX MAP LEGEND:

- # — INDICATES PLAN SHEET NUMBER FOR PHASE 2 ULTIMATE CONDITION
- INDICATES PLAN SHEET LIMIT

1ST PLAN CHECK SUBMITTAL

Underground Service Alert
CALL BEFORE YOU DIG
Call: TOLL FREE
811
TWO WORKING DAYS BEFORE YOU DIG

LEGEND:

- EXISTING RIGHT OF WAY
- EXISTING PARCEL LINES
- CENTERLINE
- EXISTING FENCE
- EXISTING CURB AND GUTTER
- EXISTING EDGE OF PAVEMENT
- EXISTING CONCRETE EDGE
- 8"S EXISTING SEWER
- 6"W EXISTING WATER
- EXISTING STORM DRAIN
- 4"G EXISTING GAS LINE
- E EXISTING ELECTRICAL CONDUIT
- T EXISTING TELEPHONE CONDUIT
- PROP. RIGHT OF WAY
- PROPERTY LINE
- EXISTING WALL
- PROPOSED CURB AND GUTTER
- EXISTING STREET LIGHT
- EXISTING POWER POLE/ TELEPHONE POLE
- TOP/TOE SLOPE
- DAYLIGHT/GRADING LIMITS
- CUT/FILL LINE
- EXISTING FLOODPLANE BOUNDARY
- PROPOSED FLOODPLANE BOUNDARY
- EXISTING CREEK FLOWLINE

ABBREVIATIONS:

AB	AGGREGATE BASE	EL	ELEVATION	PB	PULL BOX
AC	ASPHALTIC CONCRETE	EX	EXISTING	P.I.P.	PROTECT IN PLACE
AV	AIR VAC	EOP	EDGE OF PAVEMENT	PVI	POINT OF VERTICAL INTERSECTION
BC	BEGIN CURVE	FG	FINISHED GRADE	PVMT	PAVEMENT
BO	BLOW OFF	F/H	FIRE HYDRANT	R/W	RIGHT OF WAY
BCR	BEGIN CURB RETURN	FL	FLOWLINE	S	SANITARY SEWER (SIZE AS NOTED)
BVC	BEGIN VERTICAL CURVE	FS	FINISHED SURFACE	SMH	SEWER MANHOLE
CB	CATCH BASIN	G	GAS LINE (SIZE AS NOTED)	STA	STATION
℄	CENTERLINE	GB	GRADE BREAK	SW	SIDEWALK
C&G	CURB AND GUTTER	HP	HIGH POINT	TB	TRAFFIC BOX/ TRAFFIC FIBER BOX
CONC.	CONCRETE	INV	INVERT	TC	TOP OF CURB
DIA.	DIAMETER	L	LENGTH OR LENGTH OF ARC	W	WATER LINE (SIZE AS NOTED)
DWY	DRIVEWAY	LP	LOW POINT	WM	WATER METER
EC	END CURVE	MH	MANHOLE	WV	WATER VALVE
ECR	END CURB RETURN	R	PROPERTY LINE	( )	EXISTING ITEM
EVC	END VERTICAL CURVE	PP	POWER POLE		

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1880 COMPTON AVENUE, SUITE 100 • CORONA, CA. 92881-3375 • 951-734-2130

REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARNETT No.78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

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Drawing No.
Sh 2 of 7

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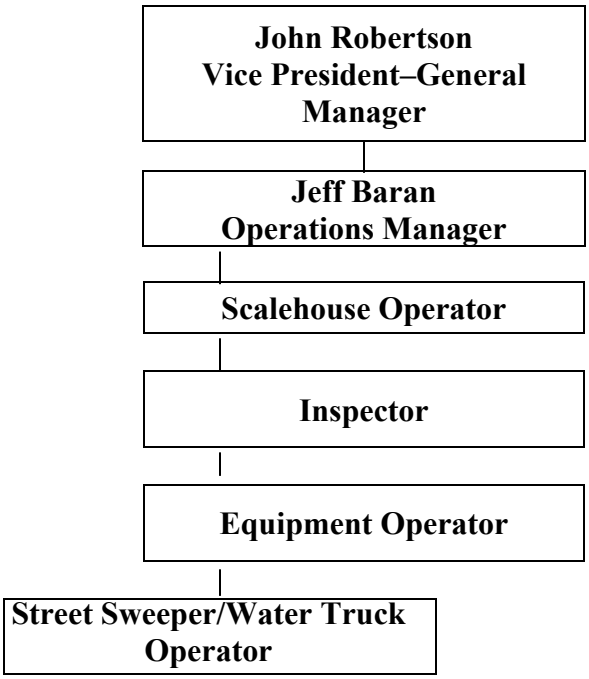
Attachment A

Resume of Management Organization


John Robertson
Vice President–General Manager
Jeff Baran
Operations Manager
Scalehouse Operator
Inspector
Equipment Operator
Street Sweeper/Water Truck Operator

Job Descriptions

1. General Manager

   This position is responsible for general management of OC Reclamation. These responsibilities include the disposal facility, overall long-term planning for the future development of the site, management of on-site tenants well as the management of off-site company activities and operations.

2. Operations Manager

   This position has the working, day-to-day, management responsibilities for the disposal facility. This position is responsible for the supervision of the remaining employees.

3. Scalehouse Operator

   This position is responsible for completing the weighmaster form and conducting the initial load inspection.

4. Inspectors

   This position is responsible to spot trucks at the fill areas and inspect the loads once they have been unloaded. It is the responsibility of the inspector to have unacceptable material, if found, reloaded and removed from the premises.

5. Equipment Operators

   The equipment operators operate the equipment listed in Attachment "H" with the exception of the street sweeper and water truck. This equipment is used, for the most part, to move, grade and compact unloaded fill material.

6. Street Sweeper/Water Truck Operator

   This operator alternates the operation of the street sweeper and the water truck. The street sweeper sweeps internal paved roads and public roads near the facility entrance and exit. The water truck is used for dust suppression at the fill areas and internal roads.

Attachment B

Injury and Illness Prevention Plan

IN THE BUSINESS OF YOUR SUCCESS℠

State of California
Injury & Illness Prevention Program (IIPP)
Customization Form

ADP Resource, Comp HR, and ADP IA

Client Business Overview * Denotes Required Fields Date*

ADP Product* ADP Resource ADP Client ID* 29Q

Company Name* OC Reclamation, LLC

Company Address* 5341 E. Santiago Canyon Road

City* Orange State* CA Zip Code* 92698

Main Client Contact Information*

First Name* Jeffrey Last Name* Baran

Phone Number* 310 722 12441 E-Mail Address* jbaran@chandlevscorp.com

ADP Risk & Safety Consultant*

Information Provided in Following Sections will be Used to Customize Your Company's IIPP

Overall IIPP Responsibility* — **Full Name**: Jeff Baran — **Job Title**: Director Realestate

Identify the person with the ultimate and overall responsibility for ensuring your company has effective and active IIPP in place (e.g., CEO, President, etc.).

Day-to-Day IIPP Responsibility* — **Job Title**: ~~Yard~~ Manager Site

Identify job title of the person who is responsible for the day-to-day administration and oversight of your IIPP.

Hazard Assessment*

Identify up to four job titles of competent observers who conduct periodic workplace assessments to identify and evaluate hazards and indicate the areas they are responsible for assessing.

	Job Title	Area(s) Responsible for Assessing
1.	Director Realestate	Whole site
2.	Yard manager	Equipment and Material yard
3.	Site Manager	Fuel tanks Plant area, Material yard
4.		

IN THE BUSINESS OF YOUR SUCCESS™

Injury & Illness Prevention Program (IIPP) Customization Form

Emergency Action Plan*

Identify the name of your Emergency Action Plan Administrator. Jeffrey Baran

Identify up to five personnel required to remain behind to perform critical facility shut down operations and detail the critical operations they are responsible for. If there are no critical facility shut down operations, please leave the following fields blank.

	Full Name and Job Title	Critical Operation
1.	Jake Jackson Yard Manager	Plant Operations
2.		
3.		
4.		
5.		

Identify the responsible personnel for each of the following emergency evacuation tasks. Please leave the following fields blank if the task is not applicable.

	Full Name	Alternate Full Name	Phone Number
Emergency Coordinator	Lin Robertson		310 784 2915
Aid to Disabled	Lin Robertson		"
Searcher	Jake Jackson		"
Stairwell Monitor	N/A		
Elevator Monitor	N/A		
Head Count	Lin Robertson		"

Identify up to six personnel who are trained and certified in CPR and first aid. Please leave the following fields blank if there are no trained and certified CPR and first aid personnel.

	Full Name and Title	Phone Number	Date Certified
1.			
2.			
3.			
4.			
5.			
6.			

IN THE BUSINESS OF YOUR SUCCESS℠

Injury & Illness Prevention Program (IIPP) Customization Form

Safety Committee

Does your company have a safety committee? ○ Yes ☒ No
If the answer is "no', please skip to the next section.

What is the frequency of your company's safety committee meetings?

List the full names and job titles of your current safety committee members.
(Up to six committee member names and job titles.)

	Full Name	Job Title
1.		
2.		
3.		
4.		
5.		
6.		

Additional Safety Programs*

In addition to the IIPP, certain exposures and hazards require additional written safety programs. Please select "Yes" or "No" to the following questions to indicate whether your company has these exposures or hazards. If "Yes" is selected, please enter the full name of the person at your company who will be the administrator of that program.

1. Does your company have any construction site operations where your employees perform job-related activities or tasks? ☒ Yes ○ No

2. Do any employees use, handle, or store hazardous chemicals? ○ Yes ☒ No

If yes, provide name of your Hazard Communication Program Administrator.

3. Do employees operate powered industrial trucks (forklifts)? ☒ Yes ○ No

If yes, provide name of your Forklift Program Administrator.

4. Are any employees reasonably anticipated to be exposed to blood or other potentially infectious materials as part of their normal job duties? ○ Yes ☒ No

If yes, provide name of your Bloodborne Pathogens Program Administrator.

5. Are employees exposed to job hazards that require use of personal protective equipment (PPE), such as safety eyewear and gloves? ☒ Yes ○ No

If yes, provide name of your PPE Program Administrator.

6. Do employees use mechanical and/or automated machines? ☒ Yes ○ No

If yes, provide name of your Machine Guarding Program Administrator.

Injury & Illness Prevention Program (IIPP) Customization Form

7. Do employees perform tasks that require equipment to be locked and tagged out (LOTO)? ○ Yes ☒ No

If yes, provide name of your LOTO Program Administrator.

8. Are employees required and/or allowed to wear respirators? ○ Yes ○ No

If yes, provide name of your Respiratory Protection Program Administrator.

9. Are any employees working at heights greater than four (4) feet on any given site, including at or away from your workplace? ☒ Yes ○ No

If yes, provide name of your General Industry Fall Protection Program Administrator. Lin Robertson

10. Do employees use fixed and/or portable ladders? ☒ Yes ○ No

If yes, provide name of your Ladder Safety Program Administrator. Lin Robertson

11. Are there any identified confined spaces in your workplace? ○ Yes ☒ No

If yes, provide name of your Confined Space Program Administrator.

12. Are any employees exposed to noise levels that meet or exceed 85 decibels (8-hour time weighted average)? ○ Yes ☒ No

If yes, provide name of your Occupational Noise Program Administrator.

13. Do employees work in an environment that exposes them to awkward postures, repetition, contact stress, forceful exertion, and/or vibration? ○ Yes ☒ No

If yes, provide name of your Industrial Ergonomics Program Administrator.

IN THE BUSINESS OF YOUR SUCCESS™

Injury & Illness Prevention Program (IIPP) Customization Form

14. Do employees work in an environment that exposes them to patient handling awkward postures, repetition, contact stress, and forceful exertion? ○ Yes ☒ No

If yes, provide name of your Safe Patient Handling Program Administrator.

15. Are employees exposed to outdoor heat in excess of 80 degrees Fahrenheit? ☒ Yes ○ No

If yes, provide name of your Heat Illness Prevention Program Administrator. Lin Robertson

18a. Heat Illness Prevention Program Administrator's Phone Number 310 784 2915

18b. Detail your Company's specific means for providing employees with fresh, pure, and suitably cool water.

We have Arrow head in the breakroom and each has a water bottle they carry around.

18c. Detail your Company's specific means for providing employees with shade.

They have a brake room and we have shade in the equipment cabs

16. Are there employees who drive personal or company vehicles (non-commercial) on company business ? ○ Yes ☒ No

If yes, provide name of your Driver Safety Program Administrator.

17. Are there any employee job duties or tasks associated with fleet (e.g., tractor trailer trucks, delivery vans/vehicles) operations? ○ Yes ☒ No

If yes, provide name of your Fleet and Driver Safety Program Administrator.

18. Do any potential workplace violence exposures exist within your company's operations? ○ Yes ☒ No

If yes, provide name of your Workplace Violence Program Administrator.

Click to Submit Form

Revision Date: Sept 22, 2016

Attachment C

Equipment List

Equipment List

Number	Type
1	Loader
1	Sweeper
1	Dozer
1	Water Truck
1	Excavator
1	Screen and Cover

Attachment D

Waste Load Checking Program

Table of Contents

Introduction

This written plan represents the sampling and waste load checking program for the OC Reclamation, LLC, Orange Operation.

General Requirements

Signage

A sign will be posted, in Spanish and English, at the entrance and at areas where waste loads are placed. This sign will have the following text:

> Notice:
>
> If you bring hazardous substances or non-inert solid waste (i.e., municipal waste, putrescent waste, metals, non-metal containers, wood, etc.} into or onto this facility, you may be subject to civil and/or criminal penalties
> *(California Health & Safety Code Numbers 25189, 25289.5)*
>
> If you have questions, please call the Operator at (310) 784-2900.

The sign will be approximately 4 by 8 feet in size. An example is included as Appendix "A".

Site Security Measures

The perimeter of the site is fenced with a 6-foot tall chain link fence topped with three strands of barbed wire. In addition, there is a Security Service present during hours when the facility is not in operation. Once the site is in operation, an attendant(s) will be present to assure that unauthorized disposal by the public does not occur. There will be "No Trespassing" signs every 500 feet on the fences. These collective measures will prevent unauthorized dumping.

Load Checking Procedures Performed on Incoming Waste Loads

General

Incoming waste loads to the SITE will be inspected and tracked as follows:

Loads are inspected at the scale house facility,

Loads are inspected at the working disposal face; and

Loads are subject to ongoing inspection at the fill area.

Additionally, the SITE's computer ticketing system will record pertinent information and issue a weighmaster ticket. These tickets can be used to track the source of loads, if needed.

Unacceptable Materials

Any material not specifically described in the list of acceptable materials will be considered unacceptable. Additionally, the presence of the following materials will be cause for rejection:

Any putrescent waste

Any infectious waste

Any liquid waste

Any hazardous waste

Metals

Non-metallic containers of any kind

Wood

Radioactive materials (generator responsible for testing)

Volatile organic compounds (generator responsible for initial testing) and

Heavy metals (generator responsible for initial testing)

Inspections

Inspections at Scale House

Incoming waste loads will be inspected by trained personnel using video surveillance equipment at the scale house facility. SITE personnel will examine waste loads for unusual vapors, odors, liquids, stains, and suspicious objects that may contain hazardous or other unacceptable materials. Suspicious objects include, but are not limited to: containers, drums, trash bags, tires, or red bags (infectious waste). If the incoming waste is found to be unacceptable following the scale house inspection, the load will be rejected. The driver of the rejected load will be informed of the situation, and then told to exit and remove the waste load from the facility.

Inspections at Working Disposal Face

Incoming waste loads will be inspected by trained personnel at the working disposal face. For this second inspection, SITE personnel will examine the waste loads for the presence of unusual vapors, odors, liquids, stains, and suspicious objects that may contain hazardous or other unacceptable materials. If a waste load is found to be unacceptable, the material will be loaded back onto the truck that brought it to the facility or, if that truck no longer is present, the material will be set aside and placed in a secure area awaiting proper disposal. The party responsible for the waste material will be contacted, and made responsible for removing the unacceptable material from the site.

Inspection at the Fill Area

All loads will be spread out and inspected prior to being placed. Spotters will be on duty at the fill area. After the load is spread, a spotter will visually inspect for unacceptable items. The spotter will also utilize the organic vapor analyzer probe to check for volatile organic compounds. Any retrieved material will be loaded on a truck and either removed to an appropriate disposal area or to the on-site storage area.

The spotter will document any retrieved material determined to be unacceptable on the daily inspection form. Any retrieved items will be segregated for subsequent removal by the generator.

Rejected materials will be returned to the generator at the generator's expense.

A load will be rejected at this point for any of the following reasons:

If it is an incoming vehicle from a non-designated generator, or without prior approval;

Failure to provide properly prepared load documentation: and

A positive reading from the organic vapor analyzer.

Rejected Material Temporary Storage

It is anticipated that, due to the stringent inspection process, the quality of diverted materials will be very small. Any load found to have primarily non-inert materials will be sent back to the generator. If any non-acceptable materials are discovered after dumping, they will be returned to the generator.

The Orange County Health Agency will be notified by facsimile or telephone within 24 hours, and in writing within 7 days, in the event that hazardous or other unacceptable wastes are detected. The report will include the type, source and volume of the unacceptable waste, the dates discovered and transported off-site and the final disposition of the waste.

There will be two on-site, temporary storage areas:

Non-Hazardous Materials Storage Area

Unacceptable materials such as wood and other organic materials, etc. which are obviously non-hazardous, but unacceptable for use as inert fill, will be stored temporarily and then removed by the generator. A storage area will be located at an appropriate area at the project site and may be moved during operations. A sign will be posted on-site, clearly marking this storage area as the "Non-Hazardous Materials Storage Area."

Questionable Material Storage Area

Any material which does not test as hazardous (by on-site inspection equipment), but is in any way suspicious to the spotter, will be temporarily stored in a separate area until tested further. After testing, the material will be removed by the generator if it is unacceptable. The storage area for this material will be located at an appropriate area at the project site and may be moved during the course of operations. A sign will be posted on-site, clearly marking the storage area as the "Questionable Material Storage Area."

Sampling Procedures

The sampling procedures outlined in this section were developed to obtain laboratory results that reflect the concentration or distribution of chemical constituents within a potential incoming waste load. The sampling plan, collection techniques, and handling procedures were derived from sampling protocols developed by the United States Environmental Protection Agency (USEPA) and by the American Society for Testing and Materials (ASTM). These references are included at the end of this report.

During each month, SITE personnel will identify one potential incoming soil source for that month. A soil sample from the identified source will be collected off-site at the source. Sampling off-site will allow SITE personnel to: (i) evaluate a source of soil, rather than merely one truck load of soil for acceptability; and (ii) reject an unacceptable source before soil from that source is transported through the community and brought to the SITE.

For each sampling event, SITE personnel will provide a written soil sample log of their sampling activities. A copy of the proposed soil sample log is included in Appendix C. The soil; sample log will include the following:

Name and signature of the Site personnel performing the sampling;

Name and address of the customer (i.e., owner, generator, contractor);

Address of the site;

Date and time of the sample collection;

Description of the waste source (residential or non-residential, and if non-residential, the type); and

Description of sampling location within the source stockpile.

At the source, SITE personnel will collect one soil sample from the potential waste source. SITE personnel will use a shovel to remove at least six inches from the surface of the waste source prior to collecting a sample. A stainless steel scoop, plastic spoon, or trowel will be used to remove a thin layer of soil from the area which came in to contact with the shovel. Sampling equipment will be decontaminated before and after each sampling event to reduce the risk of cross-contamination from one sample to another. Decontamination will consist of washing and scrubbing in a Alconox solution or equal, and then double rinsing with de-ionized water.

SITE personnel will collect one grab sample (approximately 300 grams of soil) with a decontaminated trowel. The sample will be placed into a plastic or other appropriate container. It will be mixed thoroughly for the purpose of obtaining a homogenous sample that is representative of the sampling interval. A portion of the sample will be transferred to an 8 ounce glass sampling jar with a Teflon lined lid. The jar and lid may be supplied by the state certified laboratory performing the chemical analysis. The sample jar will be labeled by SITE personnel with the following:

Sample Location;

Sample identification number;

Date of sample collection;

Time of sample collection;

Required laboratory analysis; and

Initials of the SITE personnel collecting the sample.

The sample jar will be placed in a properly insulated cooler for transport. The sample will be transported to a laboratory certified by the California Department of Health Services (CDHS). Standard chain-of-custody procedures will be used. A copy of a typical chain-of custody form is included in Appendix D.

Fill Tracking Procedures

For each day, SITE personnel will document the total quantity (number of loads and volume or tonnage) of material disposed in each of the fill areas of the SITE and the fill method (i.e., horizontal lifts or pushing of the edge) used to dispose of the material in each of the fill areas. For the annual report due March 1st, the operator will have prepared, annually, an aerial photograph. On the aerial photograph, the area filled during that reporting period will be shown. The daily observation form will be used to log waste load information including the dump area. These forms will be used to locate the extent of the area filled during the reporting period.

Project Approval Form

The responsible party (i.e., generator, owner, contractor) shall submit an approval form to OC Reclamation, LLC for any project where the volume of soil disposed is (a) anticipated by the responsible party to exceed 750 cubic yards, or (b) though not anticipated by the responsible party to exceed 750 cubic yards, ultimately determined by OC Reclamation, LLC to exceed such an amount. A copy of the proposed project approval form is included in Appendix "B".

The responsible party shall provide the following information on the form:

Name and address of Responsible Party (Individual and Company)

Address of Waste Source

Type of Source Material (Residential or Non-Residential)

Estimated Quality (Volume)

Known Chemical Analysis of Source

Known Phase I, Phase II and/or Phase III Environmental Site Assessment(s) of the Source Site

Anticipated Delivery Date(s).

As part of this project approval form, the responsible party will be required to sign an acknowledgement Stating that, to the "best of his or her knowledge, hazardous levels of contaminants do not exist in the waste." Based on the information supplied by the responsible party, SITE personnel will evaluate whether to accept or reject the waste source for disposal; SITE personnel will record the following on the project approval form:

Approval number

Authorized signature of SITE personnel; and

Date of approval

The approval number will be recorded on each weigh master ticket, which then will be used to keep track of where the waste is disposed. Original copies of the completed and signed approval forms will be archived at the SITE office for five (5) years.

Personnel

Training

All current and new SITE personnel working at the scale house and the disposal face will be provided with the "First Responder - Operation Level" 16-hour training recognized by the California Office of Emergency Services. The First Responder training at the operations level meets OSHA requirements under 29 CFR 1910.120 and the California Code of Regulations (CCR) Title 8, Section 5192. Thereafter, all such personnel will receive refresher training on an annual basis.

With this training, SITE personnel will be better able to recognize and respond to any incident involving unacceptable materials that may enter the SITE in a manner that will reduce exposures to nearby persons, property or the environment. Copies of the certificates documenting the personnel training will be achieved at the SITE's office for five (5) years.

Emergency Contact List

The following list contains the telephone numbers for the operator, the local enforcement agency (LEA), the city authority, the local fire authority and the regional board. The list will be posted in the project site office.

Entity	Contact Co. / Agency	Contact Person	Telephone Number
President	OC Reclamation, LLC	John Robertson	310-784-2910
Site Manger	OC Reclamation, LLC	Trevor Wood	310-784-2904
Local Fire Authority	Orange County Fire		911 or 714-573-6000
Water Board	Santa Ana-RWQCB		851-782-4130
Hazardous Materials Information Center			800-467-4922

Waste Load Checking Program Checklist

A checklist summarizing the waste load-checking program is included in Appendix "F". The checklist summarizes the requirements, frequency of requirements and notes associated with the requirements.

Appendix A

Appendix B

Appendix C

Appendix D

Appendix E

Appendix F

Attachment E

Notice of Intent
General Permit to Discharge Storm Water
Associated With Industrial Activity (WQ Order No. 2014-0057-DWQ)

CALIFORNIA Water Boards

State Water Resources Control Board

NOTICE OF INTENT

GENERAL PERMIT TO DISCHARGE STORM WATER
ASSOCIATED WITH INDUSTRIAL ACTIVITY (WQ ORDER No. 2014-0057-DWQ)
(Excluding Construction Activities)

GAVIN NEWSOM
GOVERNOR

JARED BLUMENFELD
SECRETARY FOR
ENVIRONMENTAL PROTECTION

WDID: 8 30I026802 Status: Active

Operator Information

Type: Private Business

Name: OC Reclamation LLC
Address: PO Box 15450
Address 2:
City/State/Zip: Irvine CA 92623
Federal Tax ID:

Contact Name: Jeff Baran
Title:
Phone Number: 310-784-2907
Email Address: JBaran@chandlerscorp.com

Facility Information

Level:

Contact Name: Jeff Baran
Title:
Site Name: OC Reclamation LLC
Address: 5341 E. Santiago Canyon Road
City/State/Zip: Orange CA 92623
County: Orange
Latitude: 33.81194 Longitude: -117.79694

Site Phone #: 310-784-2907
Email Address: JBaran@chandlerscorp.com
Site Size: 15 Acres
Industrial Area Exposed to Storm Water: 10 Acres
Percent of Site Impervious (Including Rooftops): 100 %

SIC Code Information

1. 1442 Construction Sand and Gravel
2. 4953 Refuse Systems
3.

Additional Information

Receiving Water: Santiago Creek
Flow: Directly
Storm Drain System:
Compliance Group:

RWQCB Jurisdiction: Region 8 - Santa Ana
Phone: 951-782-4130
Email: r8_stormwater@waterboards.ca.gov

Certification

Name: John Robertson
Date: September 06, 2016
Title: President

Attachment F

Well Survey

Government Records Report | 2019

Order Number: 36227

Report Generated: 11/18/2019

Project Name: OC Reclamation

Project Number: 2277

OC Reclamation
5341 E. Santiago Canyon Road
Orange, CA 92869

2 Corporate Drive
Suite 450
Shelton, CT 06484
Toll Free: 866-211-2028
www.envirositecorp.com

Table of Contents 2019

Envirosite Corporation has conducted a search of all reasonably ascertainable records in accordance with EPA's AAI (40 CFR Part 312) requirements and the ASTM E-1527-13 Environmental Site Assessments standard.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

OC Reclamation
5341 E. Santiago Canyon Road
Orange, CA 92869

COORDINATES:

Latitude (North):	33.812669 - 33°48'45.6"
Longitude (West):	-117.797355 - -117°47'50.5"
Universal Transverse Mercator:	Zone 11N
UTM X (Meters):	426203.86
UTM Y (Meters):	3741671.17

ELEVATION:

Elevation:	298.271 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 33117-G7 Orange, CA
Most Recent Revision: 2018

No Mapped Sites

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was not listed in any of the databases searched by Envirosite Corporation.

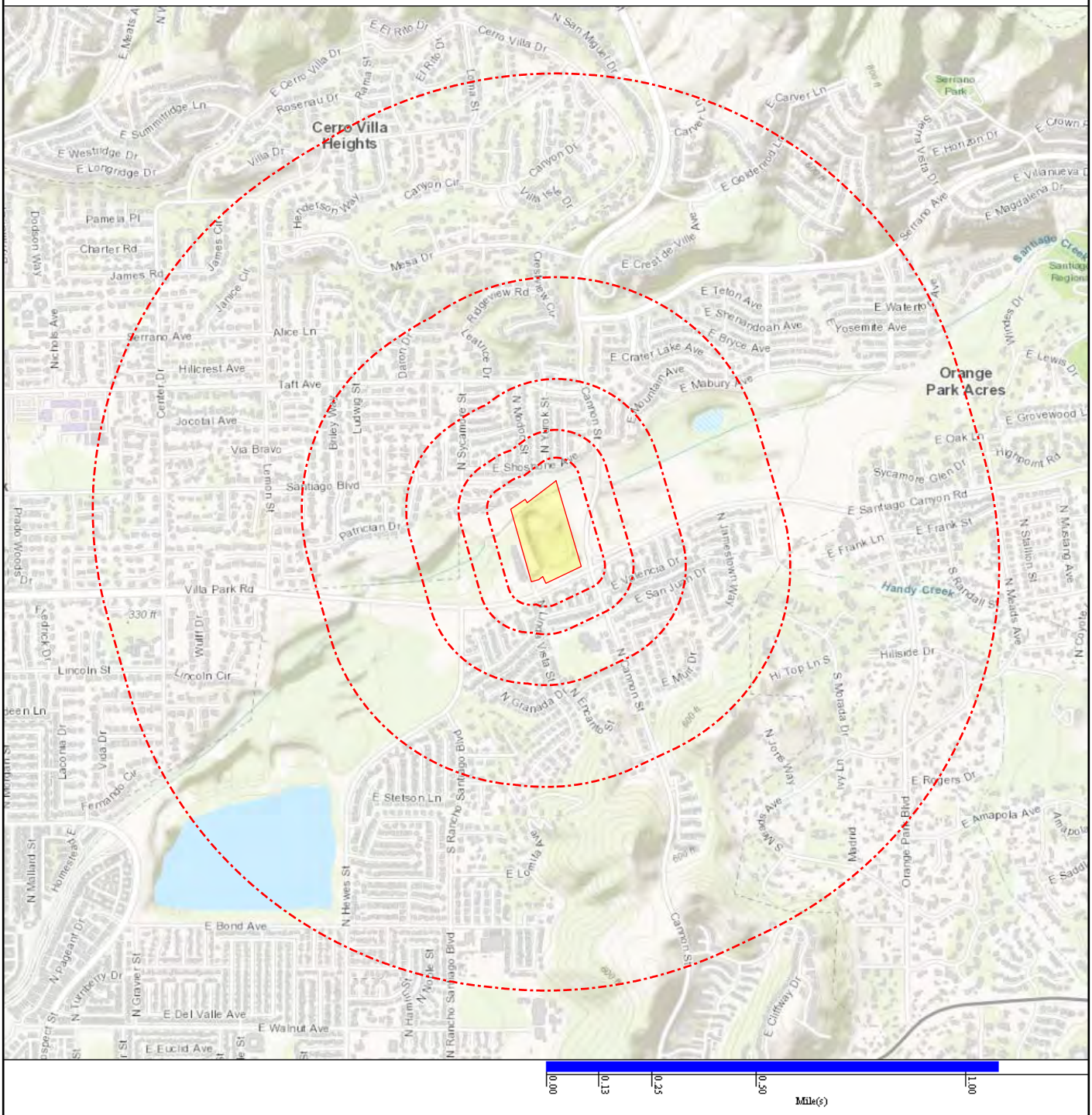
SEARCH RESULTS:

No unmappable sites reported.

DATABASE(S) WITH NO MAPPED SITES:

SUBJECT NAME: OC Reclamation
ADDRESS: 5341 E. Santiago Canyon Road, Orange, CA 92869
LAT/LONG: 33.812669 / -117.797355

PREPARED FOR: Associates Environmental - Huntington ...
ORDER #: 36227
REPORT DATE: November 18, 2019



SUBJECT NAME: OC Reclamation
ADDRESS: 5341 E. Santiago Canyon Road, Orange, CA 92869
LAT/LONG: 33.812669 / -117.797355

PREPARED FOR: Associates Environmental - Huntington ...
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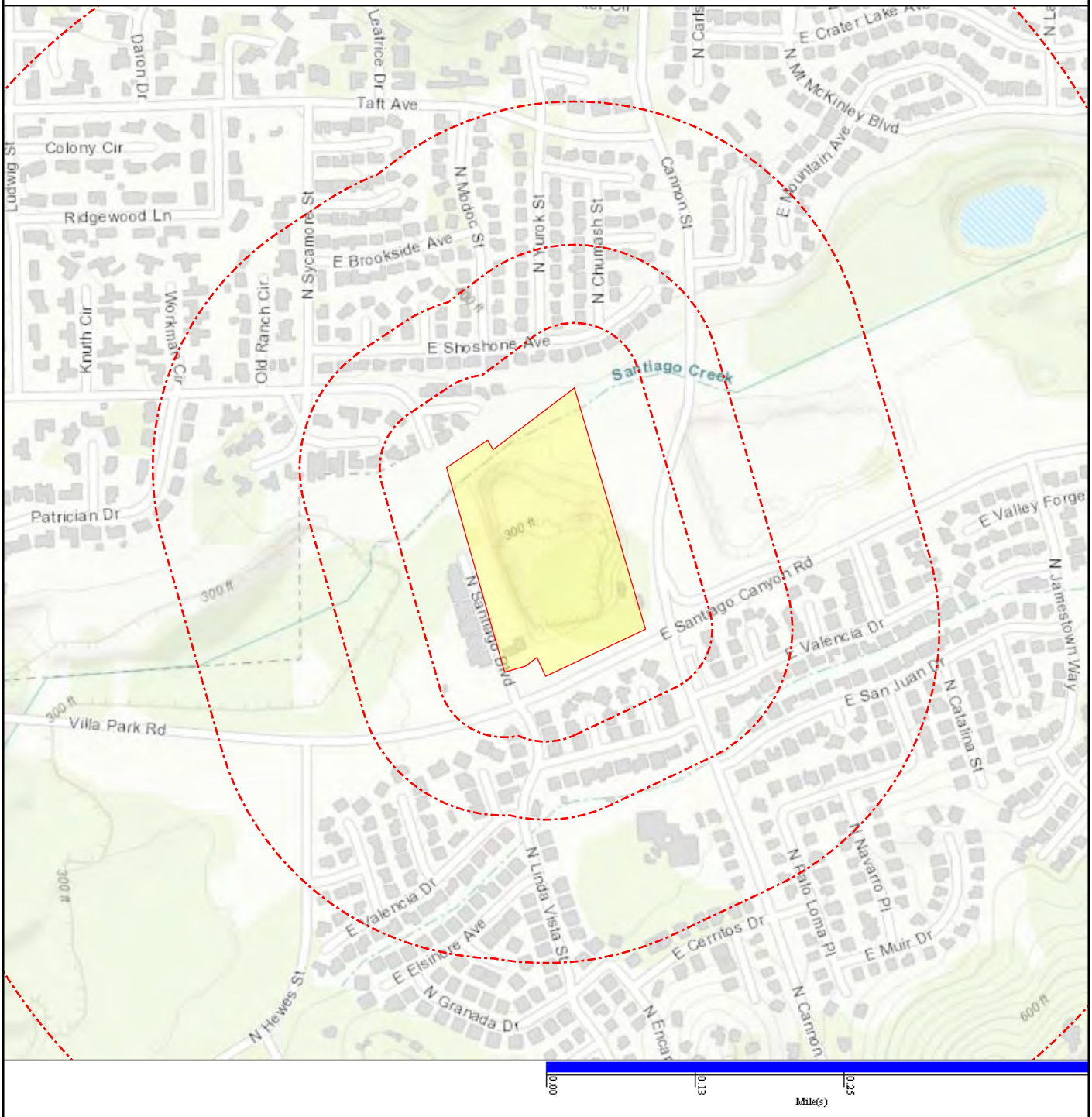
REPORT DATE: November 18, 2019



No unmappable sites reported.

SUBJECT PROPERTY ADDRESS:

OC Reclamation
5341 E. Santiago Canyon Road
Orange, CA 92869

SUBJECT PROPERTY COORDINATES:

Latitude(North):	33.812669 - 33°48'45.6"
Longitude(West):	-117.797355 - -117°47'50.5"
Universal Transverse Mercator:	Zone 11N
UTM X (Meters):	426203.86
UTM Y (Meters):	3741671.17

ELEVATION:

Elevation:	298.271 ft. above sea level

USGS TOPOGRAPHIC MAP:

Subject Property Map:	33117-G7 Orange, CA
Most Recent Revision:	2018

GEOHYDROLOGY DATA:

SUBJECT PROPERTY TOPOGRAPHY:

Topographic Gradient: South

DFIRM FLOOD ZONE:

	DFIRM Flood
Subject Property County:	Electronic Data:
ORANGE	N/R
Flood Plain Panel at Subject Property:	N/R
Additional Panels in search area:	N/R

FEMA FLOOD ZONE:

	FEMA Flood
Subject Property County:	Electronic Data:
ORANGE	N/R
Flood Plain Panel at Subject Property:	N/R
Additional Panels in search area:	N/R

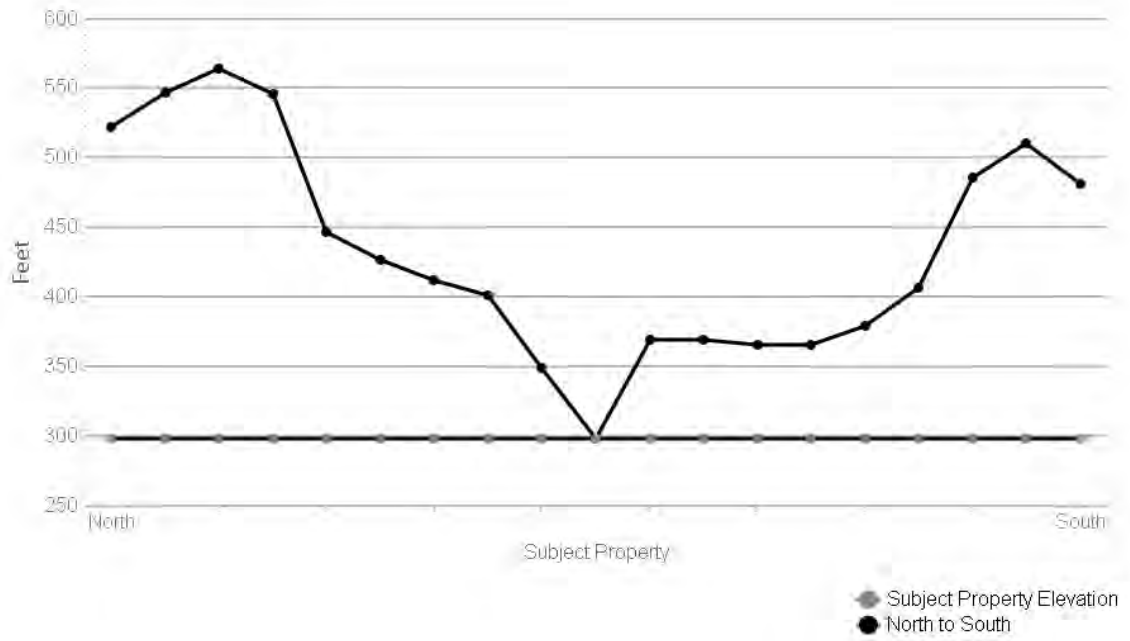
NATIONAL WETLAND INVENTORY:

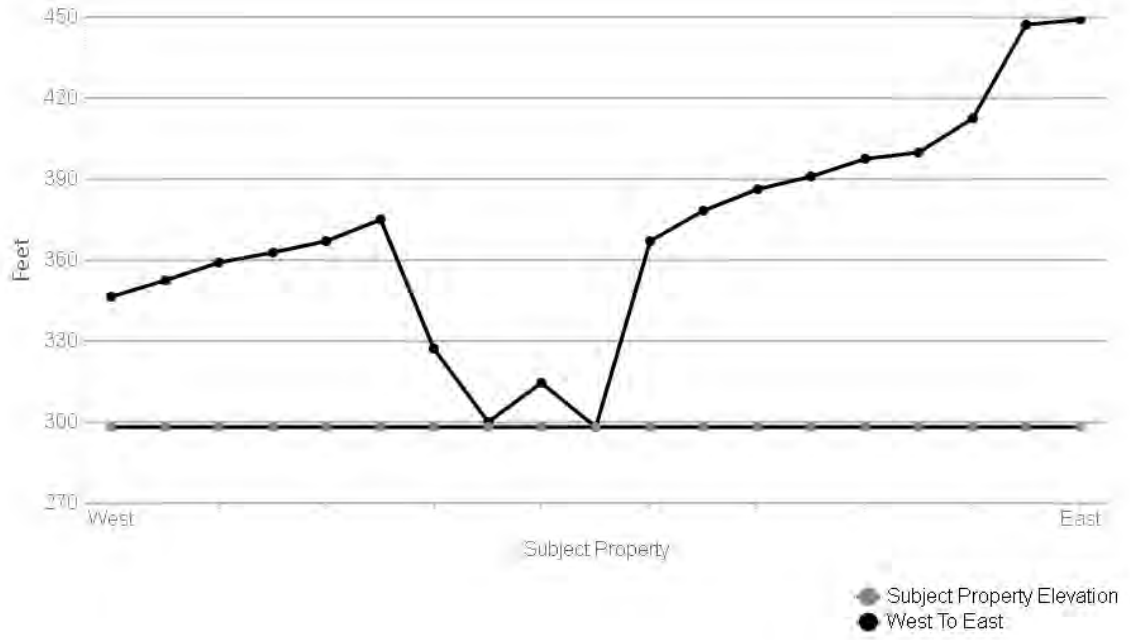
	NWI Electronic
NWI Quad at Subject Property:	Data Coverage:
No available data	No available data

LITHOSTRATIGRAPHIC INFORMATION:

ROCK STRATIGRAPHIC UNIT:		**GEOLOGIC AGE IDENTIFICATION**
Era:	Not Searched	Category: Not Searched
System:	Not Searched	
Series:	Not Searched	
Code:	Not Searched	

SURROUNDING ELEVATION PROFILES:





SOIL COMPOSITION IN GENERAL AREA OF SUBJECT PROPERTY:

Not Searched

WATER AGENCY DATA:

WATER AGENCY SEARCH DISTANCES:

DATABASE:	SEARCH DISTANCE (MILES):
OIL & GAS WELLS - CA	1.000
PWS	1.000
WELLS - GAMA - CA	0.000

DISTANCE TO NEAREST:	DISTANCE:
OIL & GAS WELLS - CA	0.537 mi / 2837 ft
PWS	0.872 mi / 4606 ft
WELLS - GAMA - CA	0.006 mi / 34 ft

FEDERAL WATER AGENCY DATA SUMMARY:

MAP ID:	WELL ID:	LOCATION FROM SP:
	TX0200742	1/2 - 1 Mile WSW

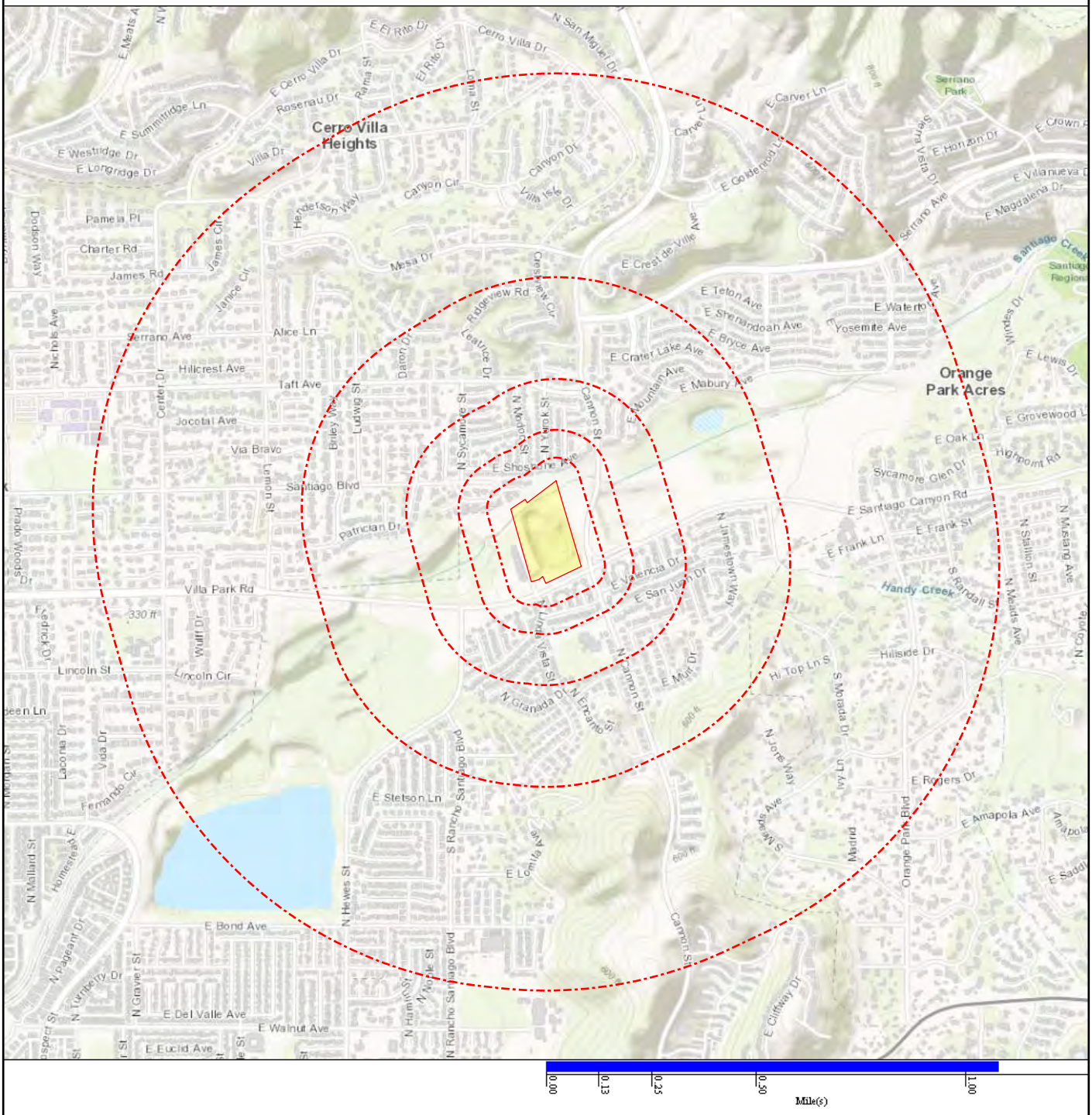
Note: PWS System location is not always the same as well location.

STATE/LOCAL WATER AGENCY DATA SUMMARY:

MAP ID:	WELL ID:	LOCATION FROM SP:
	405901247	1/2 - 1 Mile NW
	L10005083707-MW-1A	< 1/8 Mile SSW

SUBJECT NAME: OC Reclamation
ADDRESS: 5341 E. Santiago Canyon Road, Orange, CA 92869
LAT/LONG: 33.812669 / -117.797355

PREPARED FOR: Associates Environmental - Huntington ...
ORDER #: 36227
REPORT DATE: November 18, 2019



RADON DATA:

STATE SOURCE: No Available Data

FEDERAL AREA RADON INFORMATION FOR: No Available Data

NUMBER OF SAMPLE SITES: No Available Data

HIST PWS ENF
Historical Public Water Supply locations with Enforcement Violations
Environmental Protection Agency
(800) 426-4791
List of Safe Drinking Water Information Systems (SDWIS) with enforcement violations that are no longer in current agency list.

PWS
Public Water Supply
Environmental Protection Agency
(800) 426-4791
Safe drinking water information Systems

PWS ENF
Public Water Supply locations with Enforcement Violations
Environmental Protection Agency
(800) 426-4791
Safe drinking water information Systems with enforcememnt violations

WELLS - GAMA - CA
California Groundwater Ambient Monitoring Assessment
State Water Resources Control Board
916-341-5791
Brings together datasets from California state agencies including: Public Health Water Resources and Pesticide Regulation as well as from the US Geological Survey Lawrence Livermore National Laboratory and the Water Boards. It shows results for untreated raw water in different types of wells for naturally-occurring and man-made chemicals.

OIL & GAS WELLS - CA
Oil and Gas Well Data
State of California Department of Conservation
916-327-1042
Oil and gas well locations and detail for all 6 districts

Attachment G

Waste Acceptance Plans

associates environmental

Waste Acceptance Plan for
OC Reclamation, LLC

The OC Reclamation, LLC facility is an inert grading/backfilling operation that only accepts inert waste that has been properly sampled/tested and found to be within the acceptance criteria listed in this document.

Soil Sampling Frequencies

Sampling frequencies will be based on the estimated volume of soil to be approved for delivery. These frequencies are as follows:

- Up to 1,000 cubic yards (yd^3) - One sample per 500 yd^3.
- From 1,000 yd^3 to 5,000 yd^3 - Two samples for the first 1,000 yd^3, and one sample per 1,000 yd^3 thereafter.
- More than 5,000 yd^3 - Ten samples for the first 5,000 yd^3 and one sample for each additional 1,000 yd^3 should be collected.

Samples must be collected in glass jars, preserved, and submitted to the laboratories within 24 hours of collection along with proper documentation.

Waste Acceptance Guidelines

The future land use, proximity to adjacent water bodies and groundwater were all taken into consideration when developing the Acceptance Standards. The Source of the Environmental Screening Levels is the San Francisco Bay Regional Water Quality Control Board Screening for Environmental Concerns, Tier 1 ESLs for soil (January 2019) except for Arsenic. For Southern California School sites, DTSC has developed an "upper bound on background" arsenic concentration of 12 mg/kg (DTSC, 2008). In some cases, the current ESL was less strict than previous years. In those instances, the facility maintained the strictest standard.

Metal Constituent Limits (EPA 6010B)

Metal	Acceptance Criteria (mg/kg)
Antimony	11
Arsenic*	12
Barium	390
Beryllium	5
Cadmium	1.9
Chromium (total)**	50
Cobalt	23
Copper	180
Fluoride	3,100
Lead	32
Mercury	1
Molybdenum	6.9
Nickel	86
Selenium	2.4
Silver	25
Thallium	0.78
Vanadium	200
Zinc	340

* DTSC upper bound for Arsenic
** Due to natural background levels in SoCal Soils, 10 x STLC (5 mg/kg) is used as upper bound

Volatiles (EPA 8260B)

Constituent	Acceptance Criteria (mg/kg)
Acetone	0.5
Benzene	0.025
Bromodichloromethane	0.016
Bromoform (tribromomethane)	0.069
Bromomethane	0.3
Carbon Tetrachloride	0.011
Chlorobenzene	1.4
Chloroethane	1.2
Chloroform	0.023
Chloromethane	6.4
1,2-dibromo-3-chloropropane	0.00059
1,2-Dibromoethane	0.00033
1,2-Dichlorobenzene	1
1,3-Dichlorobenzene	6
1,4-Dichlorobenzene	0.2
1,1-Dichloroethane	0.2
1,2-Dichloroethane	0.0045
1,1-Dichloroethylene	0.54
Trans-1,2-Dichloropropane	0.3
1,2-Dichloropropane	0.065
1,4-Dioxane	0.00017
Ethylbenzene	0.43
Hexachlorobutadiene	0.028
Hexachloroethane	0.019
Methyl Ethyl Ketone (MEK)	3.0
Tert-Butyl methyl ether	0.023
Naphthalene	0.033
Styrene	0.92
Tert-Butyl alcohol	0.075
1,1,1,2-Tetrachloroethane	0.01
1,1,2,2-Tetrachloroethane	0.018
Tetrachloroethylene (PCE)	0.08
Toluene	2.9
1,2,4-Trichlorobenzene	1.2
1,1,1-Trichloroethane	7
1,1,2-Trichloromethane	0.007
Trichloroethylene (TCE)	0.046
Vinyl Chloride	0.0015
Xylenes	2.1

Organochlorine Pesticides/PCBs (EPA 8081A)

Constituent	Acceptance Criteria (mg/kg)
Aldrin	0.0024
Chlorodane	0.0085
Chlorobenzilate	4.8
Diallate	8.7
DDT/DDE/DDD	Combined Total – 1.0
Dieldrin	0.00017
Endosulfan	0.0046
Endrin	0.00065
Heptachlor	0.007
Heptachlor Epoxide	0.00042
Hexachlorobenzene	0.340
Hexachlorocyclopentadiene	37.0
Kepone (Chlordecone)	21.0
Lindane	0.0098
Methoxychlor	0.013
Toxaphene	0.00042

Semi-Volatiles (EPA 8270C)

Constituent	Acceptance Criteria (mg/kg)
Benzo(a)pyrene	0.016
Cresols (Methylphenols)	200.0
1,2-Dichlorobenzene	1.60
Diethyl Phthalate	4,900
2,4-Dinitotoluene	0.0018
1,4-Dioxane	0.00023
Hexachlorobenzene	0.0008
Hexachlorobutadiene	0.028
Hexachlroethane	0.019
Mirex	0.03
Nitrobenzene	2.0
Pentachlorophenol	0.013
Pyridine	5.0
2,4,5-Trichlorphenol	0.18
2,4,6–Trichlorophenol	0.04
Polychlorinated Biphenyls (PCBs) (Aroclor)	ND (Will not be accepted above ND.)
Dioxin (EPA 8290)	ND (Will not be accepted above ND.)
Furan (EPA 8290)	ND (Will not be accepted above ND.)

Total Petroleum Hydrocarbon (EPA 8015)

Constituent	Acceptance Criteria (mg/kg)
Total Petroleum Hydrocarbons (gasoline) (C4-C12)	50 mg/kg
Total Petroleum Hydrocarbons (diesel) (C13-C22)	100 mg/kg
Total Petroleum Hydrocarbon (oil) (C23-C35)	500 mg/kg

Once material is approved and arrives at the site, the facility follows the inspection and documentation procedures detailed in the Waste Load Acceptance Program.

Attachment H

Proposed Grading Plans

CITY OF ORANGE
ROUGH GRADING PLAN PHASE 1
CHANDLERS SAND AND GRAVEL
APN 370-231-14, ADJACENT TO 1425 N. SANTIAGO BLVD. ORANGE, CA. 92869

GRADING NOTES:

1. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO BEGINNING ANY GRADING OR CONSTRUCTION. CALL CITY INSPECTOR 714-744-5526 TO ARRANGE MEETING TIME.
2. ALL GRADING SHALL BE DONE IN ACCORDANCE WITH THE CITY OF ORANGE MANUAL OF GRADING AND STANDARD PLANS AND SPECIFICATIONS (AVAILABLE ON CITY WEBSITE OR AT THE ENGINEERING OFFICE).
3. CITY APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER FROM RESPONSIBILITY FOR THE CORRECTION OF ANY ERROR AND/OR OMISSION DISCOVERED DURING THE CONSTRUCTION. ANY SUBSTANTIAL CHANGES TO THE APPROVED GRADING PLAN OCCASIONED BY FIELD CONDITIONS, SITE PLAN CHANGES, ETC. SHALL BE ACCOMPLISHED PRIOR TO FINAL GRADING, AND SHALL BE REVIEWED AND APPROVED BY THE CITY ENGINEER PRIOR TO IMPLEMENTING CHANGES IN THE FIELD.
4. RETAINING WALLS WILL BE REQUIRED WHERE CUTTING OR FILLING ALONG PROPERTY LINES MAY CAUSE DAMAGE, BUT ALWAYS WHERE THE CUT OR FILL EXCEEDS ONE (1) VERTICAL FOOT.
5. FREE STANDING AND RETAILING WALLS SHOWN ON THIS PLAN ARE FOR LOCATION AND ELEVATION CONTOURS ONLY. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE STRUCTURAL APPROVAL OF ANY WALLS OR RETAINING DEVICES SHOWN HEREON. A SEPARATE PLAN CHECK AND PERMIT MUST BE OBTAINED FROM THE CITY BUILDING DIVISION BEFORE THE CONSTRUCTION OF ANY WALLS.
6. ALL ON-SITE SLOPES SHALL NOT EXCEED A GRADE OF TWO (2) HORIZONTAL TO ONE (1) VERTICAL (2:1), UNLESS STEEPER SLOPES ARE AUTHORIZED BY THE SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER.
7. A GRADING PERMIT MUST BE OBTAINED FROM THE CITY ENGINEERING DIVISION BY THE OWNER, DEVELOPER, OR GENERAL CONTRACTOR PRIOR TO CONDUCTING ANY GRADING, CLEARING, BRUSHING, OR GRUBBING ON NATURAL OR EXISTING GRADE THAT IS PREPARATORY TO GRADING.
8. ALL ROUGH AND FINAL GRADING SHALL BE CERTIFIED TO BE IN COMPLIANCE WITH THE APPROVED GRADING PLAN AND CITY STANDARDS. THESE CERTIFICATIONS SHALL BE IN WRITING TO THE CITY ENGINEER AND SHALL BE SIGNED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR, SOILS OR GEOTECHNICAL ENGINEER, AND GRADING CONTRACTOR. THESE CERTIFICATIONS SHALL BE FILED WITH THE CITY PRIOR TO THE RELEASE OF OCCUPANCY.
9. LANDSCAPING AND IRRIGATION PLANS, AS REQUIRED, SHALL BE APPROVED BY THE CITY DEPARTMENT OF COMMUNITY DEVELOPMENT 714-744-7220.
10. PROVIDE STREET TREES AS REQUIRED BY THE CITY. NOTIFY DEPARTMENT OF PUBLIC WORKS, MAINTENANCE DIVISION, 714-532-6480 FOR STREET TREE LOCATION AND PLANTING STANDARDS.
11. ALL FILL ONE (1) FOOT OR GREATER SHALL BE TESTED AND CERTIFIED AS TO RELATIVE COMPACTION.
12. FILL SLOPES THREE (3) FEET OR GREATER IN HEIGHT SHALL BE COMPACTED TO THE FACE. THE SOILS ENGINEER SHALL INCLUDE SLOPE COMPACTION TESTS IN THE FINAL REPORT FOR ROUGH GRADING.
13. ALL UTILITY TRENCH BACKFILLS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOILS ENGINEER. THE SOILS ENGINEER SHALL PROVIDE WRITTEN APPROVAL OF UTILITY TRENCH BACKFILL PRIOR TO FINAL GRADING RELEASE.
14. ALL FILL SHALL BE COMPACTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE CALIFORNIA BUILDING CODE ADOPTED BY THE CITY OR RESPONSIBLE ENGINEERING RECOMMENDATIONS.
15. IN THE EVENT THE LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR, SOILS ENGINEER, OR ENGINEERING GEOLOGIST WHO IS RESPONSIBLE FOR THE PROFESSIONAL SUPERVISION OF THAT PORTION OF THE GRADING WHICH IS WITHIN HIS AREA OF TECHNICAL COMPETENCE IS RELIEVED OF OR OTHERWISE TERMINATES HIS DUTIES PRIOR TO COMPLETION OF THE WORK SHOWN ON THESE PLANS HE SHALL REPORT THIS FACT IN WRITING TO THE CITY ENGINEER WITHIN 48 HOURS OF HIS TERMINATION. PERSON ASSUMING HIS DUTIES SHALL PERFORM ALL INVESTIGATIONS HE DEEM NECESSARY TO APPROVE THE ENTIRE WORK INCLUDING CERTIFYING THAT PREVIOUS REPORTS ARE IN CONFORMANCE WITH CITY GRADING ORDINANCE AND THE GRADING PERMIT. ACCEPTANCE OF THE PROJECT BY THE NEW CONSULTANT SHALL BE MADE IN WRITING TO THE CITY, AND SHALL INCLUDE HIS CERTIFICATION OF ALL WORK PREVIOUSLY ACCOMPLISHED AND HIS RESPONSIBILITY FOR THE REMAINDER OF THE PROJECT.
16. REPAIR OR REPLACE ANY BROKEN OR DETERIORATED ADJACENT PUBLIC INFRASTRUCTURE INCLUDING DAMAGED PUBLIC SIDEWALK, DAMAGED CURB AND GUTTER, AND DAMAGED DRIVEWAY APRONS.
17. ALL UTILITY LINES FROM PUBLIC STREET AND EASEMENT, INCLUDING POWER LINES AND TELECOMMUNICATION LINES SHALL BE CONSTRUCTED UNDERGROUND.
18. A SEPARATE ENCROACHMENT PERMIT IS REQUIRED FOR WORK PERFORMED IN PUBLIC RIGHT-OF-WAY.
19. A SEPARATE HAUL PERMIT IS REQUIRED FOR IMPORT/EXPORT OF EARTH MATERIAL. CONTACT TRAFFIC DIVISION AT 714-744-5536 FOR MORE DETAILS.

LEGAL DESCRIPTION:

THAT PART OF LOT 5, BLOCK "A" OF THE LAND OF OGE AND BOND, AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGES 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA.

ALSO EXCEPT THEREFROM, THAT PORTION DESCRIBED IN PARCEL Y32-104 OF THAT CERTAIN FINAL ORDER OF CONDEMNED, SUPERIOR COURT CASE NO. 151237, A CERTIFIED COPY OF WHICH WAS RECORDED MAY 22, 1967 IN BOOK 8259, PAGE 279 OF OFFICIAL RECORDS OF ORANGE COUNTY, CALIFORNIA.

ALSO EXCEPT THEREFROM, THAT PORTION DESCRIBED IN DEED TO THE CITY OF ORANGE, A MUNICIPAL CORPORATION, RECORDED JULY 19, 1991 AS INSTRUMENT NO. 91-378561 OF OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM, THAT PORTION DESCRIBED IN DEED TO THE CITY OF ORANGE, A MUNICIPAL CORPORATION, RECORDED MAY 23, 2011 AS INSTRUMENT NO. 2011000254055 AND RE-RECORDED MARCH 15, 2012 AS INSTRUMENT NO. 2012000148952 BOTH OF OFFICIAL RECORDS.

BENCH MARK:

BENCH MARK NO. OC 3L-32-71 ; ELEVATION: 385.466 MSL; VERTICAL DATUM: NAVD88. ALUMINUM BENCHMARK DISK STAMPED "3L-32-71", SET IN THE TOP OF A CONCRETE POST. MONUMENT IS LOCATED IN THE SOUTHWESTERLY CORNER OF THE INTERSECTION OF SANTIAGO CANYON ROAD AND CABRILLO STREET MONUMENT IS SET LEVEL WITH THE TOP OF THE CURB.

BASIS OF BEARING

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CCS83, ZONE 6, 2007 EPOCH ADJUSTMENT. POINT # 3191.

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF ORANGE STANDARD PLANS AND SPECIFICATIONS, AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. (GREEN BOOK)
2. PUBLIC AND PRIVATE UTILITIES AND THE ACCOMPANYING SUBSTRUCTURES SHOWN ON THESE PLANS ARE FROM AVAILABLE PUBLIC DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES AND SUBSTRUCTURES WITHIN THE CONSTRUCTION LIMITS. DAMAGE TO SUCH RESULTING FROM CONSTRUCTION OPERATIONS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. ALL UNDERGROUND UTILITY AND OTHER SUBSURFACE WORK SHALL BE COMPLETED PRIOR TO COMPLETING THE FINAL SURFACING OR LANDSCAPING. SEWER LATERALS TO BE INSTALLED PRIOR TO CURB AND GUTTER.
4. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES REGARDING ANY PROBLEMS.

MICAH JEAN	CITY OF ORANGE STREET TREES	714-532-6470
JIMMY ROCHA	CITY OF ORANGE TRAFFIC DIVISION	714-532-6426
PHYLLIS THEN	CITY OF ORANGE TRANSPORTATION PERMIT	714-744-5536
SON TRAN	CITY OF ORANGE WATER DIVISION	714-288-2497
DAVID ZAPALAC	AT&T (TELEPHONE SERVICES)	714-237-6949
VALENTINA GIPSON	AT&T (LIAISON)	714-666-5467
GREG BURNETT	KINDER MORGAN	909-873-5174
ROBERT HOERNING	MCI - WORLDCOM	714-923-5900
JASON KING	XO COMMUNICATIONS, INC.	949-417-7430
WALTER WERSTIUK	AT&T	714-963-7964
MICHAEL ORDUNO	SOUTHERN CALIFORNIA EDISON	626-302-4387
DIANA CABALLERO	SOUTHERN CALIFORNIA GAS DISTRIBUTION	714-634-3115
ROSALYN SQUIRES	SOUTHERN CALIFORNIA GAS TRANSMISSION	818-701-4546
CHRIS DONNELLY	TIME WARNER COMMUNICATIONS	714-903-8307
MARK STRICKERT	ORANGE COUNTY TRANSPORTATION AUTHORITY	714-560-5883
MALCOLM BROWN	VERIZON WIRELESS	949-286-8772
JIM BASSLER	QWEST COMMUNICATION	562-777-2225
ERNIE MORRIS	LEVEL 3 COMMUNICATIONS	858-292-2134

5. FOR INSPECTION, CONTACT CITY OF ORANGE PUBLIC WORKS, 714-744-5526, FORTY-EIGHT (48) HOURS PRIOR TO THE REQUIRED DATE.
6. THE CONTRACTOR SHALL NOTIFY CITY OF ORANGE PUBLIC WORKS MAINTENANCE DIVISION, 714-532-5480, SEVENTY-TWO HOURS PRIOR TO ANY ROAD CLOSURE AND/OR DETOUR.
7. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (DIAL 811 OR 1-800-227-2600) FORTY-EIGHT HOURS PRIOR TO THE REQUIRED DATE.
8. ALL PIPELINES AND SUBSTRUCTURES ARE TO BE CONSTRUCTED BEGINNING FROM THE DOWNSTREAM END. VERIFY DOWNSTREAM POINTS OF CONNECTION (HORIZONTAL AND VERTICAL LOCATIONS) PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE CITY OF ORANGE.
9. CONSTRUCTION SURVEY WORK FOR THE LINES AND GRADES FOR CONSTRUCTION OF THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL PRESERVE ALL PERMANENT SURVEY MARKERS INCLUDING ALL CENTERLINE TIES AS SPECIFIED IN SECTION 2-9.1 OF THE CITY OF ORANGE STANDARD PLANS AND SPECIFICATIONS.
11. THE ENGINEER REPRESENTS THAT HE HAS MADE A REASONABLE ENGINEERING DETERMINATION THAT THERE ARE NO UNDERGROUND UTILITY LINES OR STRUCTURES EXCEPT AS SHOWN ON THESE PLANS.
12. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL UTILITY LINES AND SUBSTRUCTURES.
13. NO DRIVEWAY OPENINGS TO BE CONSTRUCTED WITHIN THREE FEET OF A FIRE HYDRANT OR CURB RETURN.
14. INSTALL STREET LIGHTS AS REQUIRED BY THE PUBLIC WORKS DEPARTMENT SPECIFICATIONS AND SPECIAL PROVISIONS FOR STREET LIGHTS AND IN ACCORDANCE WITH CITY STANDARD PLAN 415.
15. INSTALL STREET TREES AS REQUIRED BY THE CITY COMMUNITY SERVICES DEPARTMENT.
16. LANDSCAPING AND IRRIGATION PLANS AS REQUIRED SHALL BE APPROVED BY THE COMMUNITY SERVICES DEPARTMENT.
17. ALL STREET SIGNS, MARKERS, AND STREET MARKINGS SHALL BE FURNISHED AND INSTALLED BY DEVELOPER IN ACCORDANCE WITH CITY STANDARD PLAN 414.
18. ALL STREET CONSTRUCTION SHOWN IS BASED ON STREET CENTERLINE STATIONS AND ELEVATIONS.
19. AN ENCROACHMENT PERMIT FROM THE CITY PUBLIC WORKS DEPARTMENT IS REQUIRED FOR ALL WORKS WITHIN PUBLIC RIGHT OF WAY.
20. AT THE COMPLETION OF THE CONSTRUCTION, SUBMIT TO THE CITY CONSTRUCTION INSPECTOR A COMPLETE SET OF VIDEO INSPECTION OF THE SEWER SYSTEM AND THE STORM DRAIN SYSTEM. THE VIDEO INSPECTION SHALL BE FOR THE ENTIRE LENGTH OF THE SYSTEM. LOCATION AND STATIONING INFORMATION SHALL BE INCLUDED IN THE VIDEO RECORDING.
21. FOR CONSTRUCTION WITHIN THE OLD TOWNE AREA, THE CONCRETE COLOR AND FINISH SHALL BE REGULAR CONCRETE MIX WITH AN APPLICATION OF WATER-BASED TOP-SURFACE RETARDER THAT IS WASHED AWAY USING PRESSURED WATER FOR A SAND BLAST FINISH EFFECT. THE RETARDER SHALL BE GRADE 05 - POWDER BLUE VIOLET (COLOR CODED) PER GRACE CONSTRUCTION PRODUCTS (WWW.GRACECONSTRUCTION.COM (877) 423-6491) OR APPROVED EQUAL.

GRADING MANUAL NOTES:

1. THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NON-COMPLYING FILL, TOPSOIL AND OTHER UNSUITABLE MATERIALS, AND BY SCARIFYING TO PROVIDE A BOND WITH NEW FILL. WHERE EXISTING SLOPES EXCEED 5 FEET IN HEIGHT AND/OR ARE STEEPER THAN FIVE HORIZONTAL TO ONE VERTICAL (5:1), THE GROUND SURFACE AT THE TOE OF FILL SHALL BE PREPARED BY BENCHING INTO SOUND BEDROCK OR OTHER COMPETENT MATERIAL, AS DETERMINED BY THE GEOTECHNICAL ENGINEER AND/OR ENGINEERING GEOLOGIST AND APPROVED BY THE CITY ENGINEER. THE LOWERMOST BENCH BENEATH THE TOE OF A FILL SLOPE SHALL BE A MINIMUM OF 10 FEET IN WIDTH. THE GROUND SURFACE AT THE TOE OF THE FILL SHALL BE PREPARED FOR SHEET FLOW RUNOFF, OR A PAVED DRAIN SHALL BE PROVIDED.
2. WHEN AN EXISTING FILL IS TO BE WIDENED OR A NEW FILL IS TO BE MADE, THE NEW MATERIAL SHALL BE BONDED TO THE OLD BY PLOWING DEEP LONGITUDINAL FURROWS OR OTHER METHOD BY THE CITY ENGINEER.
3. WHERE FILL IS TO BE PLACED OVER A CUT SLOPE, THE BENCH UNDER THE TOE OF THE FILL SHALL BE AT LEAST FIFTEEN (15) FEET WIDE, BUT THE CUT SLOPE MUST BE MADE BEFORE PLACING FILL AND SHALL MEET THE APPROVAL OF THE GEOTECHNICAL ENGINEER AND/OR ENGINEERING GEOLOGIST AS SUITABLE FOUNDATION FOR FILL.

NOTICE TO CONTRACTORS:

WORKING HOURS; THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY, THE OWNER, AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA)PHONE 1-800-422-4133, TWO (2) WORKING DAYS PRIOR TO DIGGING. NO CONSTRUCTION PERMIT ISSUED BY THE PUBLIC WORKS DEPARTMENT SHALL BE VALID INVOLVING UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS AN INQUIRY NUMBER ISSUED BY U.S.A.

CARE SHOULD BE TAKEN TO PREVENT GRADED DITCHES AND SWALES FROM UNDERMINING STREET IMPROVEMENTS. UPON INSPECTION OF THE SITES, THE CITY ENGINEER MAY REQUIRE TEMPORARY GUNITE SWALES, ENTERING OR LEAVING IMPROVEMENTS.

OWNER/DEVELOPER:

CHANDLERS SAND AND GRAVEL
17392 DIAMLER ST.
IRVINE, CA. 92614
(310) 784-2907
ATTN: JOHN ROBERTSON

ENGINEER:

KWC ENGINEERS
1880 COMPTON AVENUE, SUITE 100
CORONA, CA. 92881-3370
(951) 734-2130
ATTN: BRANDON M. BARNETT, P.E., P.L.S.

SITE ADDRESS:

CHANDLERS SAND AND GRAVEL
1425 N. SANTIAGO BLVD.
ORANGE, CA. 92869
(310) 784-2907
ATTN: JOHN ROBERTSON

SOILS ENGINEER:

GINTER & ASSOCIATES, INC.
27631 DURAZNO
MISSION VIEJO, CA. 92692
(714) 581-2363
ATTN: DAVE GINTER, GE

SOILS ENGINEER:

THIS PLAN HAS BEEN REVIEWED BY DAVE GINTER AND APPEARS TO BE IN GENERAL CONFORMANCE WITH THE RECOMMENDATIONS IN OUR REPORT DATED MAY 6, 2016 PROJECT NO. 177-01 THIS PLAN HAS BEEN REVIEWED FOR GEOTECHNICAL ASPECTS ONLY. WE MAKE NO REPRESENTATION REGARDING ACCURACY OF DIMENSIONS, QUANTITIES, MEASUREMENT, CALCULATIONS OR ANY PORTION OF THE DESIGN. GEOTECHNICAL CONDITIONS AND RECOMMENDATIONS SHOULD BE CONFIRMED BY THE GEOTECHNICAL CONSULTANT IN THE FIELD AT THE TIME OF CONSTRUCTION.

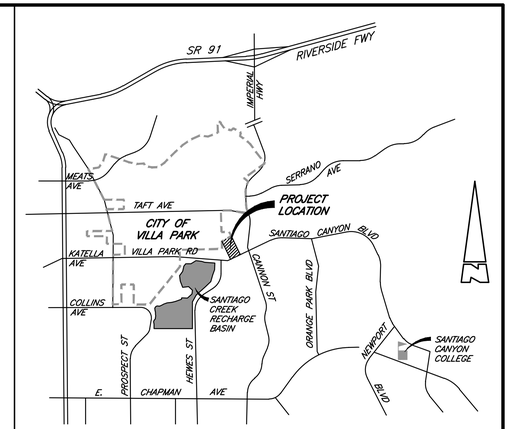
SOILS ENGINEER: _____ RCE# _____ GE# _____ EXP: _____

ENGINEERING GEOLOGIST: _____ CEG# _____ EXP: _____

RESPONSIBILITY FOR SPILLS ON COUNTY/ORANGE COUNTY FLOOD CONTROL DISTRICT PROPERTY:

i. ANY PERMITTEE SPILLAGE OF FUEL, OIL OR HAZARDOUS MATERIALS FROM EQUIPMENT OR VEHICLES MUST BE IMMEDIATELY AND PROPERLY CLEANED UP AND REMOVED FROM THE COUNTY/ORANGE COUNTY FLOOD CONTROL DISTRICT (OCFCD) RIGHT-OF-WAY. FOR SPILLS OF SIGNIFICANT VOLUME, NOTIFICATIONS MUST BE IMMEDIATELY MADE TO OC PUBLIC WORKS / WATER QUALITY COMPLIANCE FOR ASSESSMENT OF APPROPRIATE CORRECTIVE ACTION. CONTAMINATED SOIL, SAND OR OTHER MATERIAL AND HAZARDOUS WASTES GENERATED FROM THE CLEANUP MUST BE DISPOSED OF BY APPROVED METHODS.

ii. PERMITTEE ASSUMES FULL RESPONSIBILITY FOR COSTS TO INVESTIGATE EXTENT OF CONTAMINATION, CLEANUP, WASTE REMOVAL AND IMPLEMENTATION OF AN APPROVED REMEDIAL ACTION PLAN FOR THE RELEASE OF ANY WASTES OR HAZARDOUS MATERIALS THAT RESULT IN SOIL, SURFACE WATER AND GROUNDWATER CONTAMINATION. NOTIFICATIONS TO OC PUBLIC WORKS/WATER QUALITY COMPLIANCE FOR ANY ISSUES INCLUDING EMERGENCY OR AFTER-HOURS INCIDENTS SHOULD BE DIRECTED TO (877) 89-SPILL. ALTERNATIVELY, EMERGENCY NOTIFICATIONS MAY ALSO BE MADE THROUGH THE ORANGE COUNTY SHERIFF'S COMMUNICATIONS CONTROL 1 BY DIALING 911.



VICINITY MAP
N.T.S.

SHEET INDEX

ESTIMATED EARTHWORK QUANTITIES - PHASE 1

ON-SITE EARTHWORK QUANTITIES FOR PHASE 1 ULTIMATE GRADING

GRADING SUMMARY	CUT (C.Y.)	FILL (C.Y.)
PHASE 1 - RAW QUANTITIES	53,050	132,545

TOTAL PROJECT AREA = 15.22 ACRES
PHASE 1 AREA OF DISTURBANCE = 9.78 ACRES

NOTE:

INERT DEBRIS ENGINEERED FILL OPERATIONS SHALL COMPLY WITH REQUIREMENTS AS SET FORTH IN CCR, TITLE 14 SECTION 17388.3

1ST PLAN CHECK SUBMITTAL

Underground Service Alert
Call: TOLL FREE 811
TWO WORKING DAYS BEFORE YOU DIG

COUNTY PERMIT: 2016-00479 | WDID NO. 8301026802
USFWS PERMIT: TE22477D-0 | .

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1880 COMPTON AVENUE, SUITE 100 • CORONA, CA. 92881-3370 • 951-734-2130

REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARNETT No. 78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF
Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17
Reference Plans for these Improvements

REVISIONS			
No.	Date	Description	Approved

BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale AS NOTED

Reviewed By:
Date Planning Division
Recommended:
Date Principal Civil Engineer

Reviewed For Compliance To City Of Orange Grading Ordinance:
Date Assistant Public Works Director/ City Engineer
Date Public Works Director

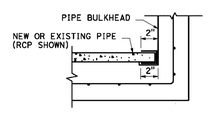
CITY OF ORANGE
ROUGH GRADING PLANS
TITLE SHEET

Drawing No. SP-4104-1
Sh 1 of 6

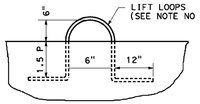
R:\15\1545\FINAL\CONST\RGRD\PHASE 1\1545RGRD01.dwg 10/01/19 12:19pm

PHASE 1 CONSTRUCTION NOTES

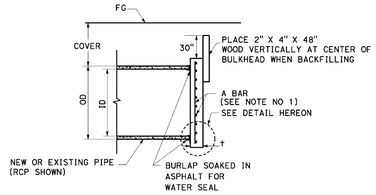
(1)	REMOVE EX. CHAINLINK FENCE	985	L.F.
(2)	CONSTRUCT 36" 1/4 TON GROUTED RIP RAP	25	S.F.
(3)	CONSTRUCT 36" 1/4 TON GROUTED RIP RAP CHANNEL PER DETAIL HEREON	1,150	S.F.
(4)	CONSTRUCT 42" R.C.P. (2000-D)	230	L.F.
(5)	CONSTRUCT PIPE CULVERT HEADWALL INLET STRUCTURE PER DETAIL ON SHEET 2.	1	EA.
(6)	INSTALL TEMPORARY CONCRETE BULKHEAD PER DETAIL HEREON	1	EA.
(7)	SLOPE TO BE STABILIZED PER SOILS ENGINEER RECOMMENDATION	–	–
(8)	INSTALL TERRACE DRAIN PER CITY OF ORANGE STD. 333	560	L.F.
(9)	CONSTRUCT CONCRETE COLLAR PER CITY OF ORANGE STD. 320	1	EA.
(10)	CONSTRUCT 4" A.C. OVER 4" A.B.	2,785	S.F.
(11)	REMOVE EX. PAVEMENT.	4,925	S.F.



WATER SEAL DETAIL
PERMANENT APPLICATION



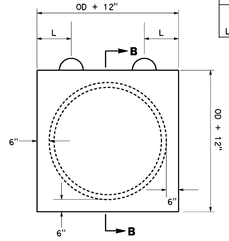
LIFT DETAIL



SECTION B-B

I. D.	COVER (ft)	t (in)	A BARS BOTH WAYS	L , P (in)
48"	4	4	#5 @ 10"	18"
OR	9	4	#5 @ 6"	
LESS	>15	5	#5 @ 6"	

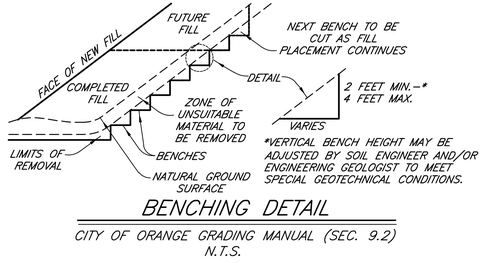
NOTES:
1. REINFORCEMENT STEEL SHALL BE CENTERED IN BULKHEAD WITH HORIZONTAL "A" BARS TOWARDS OUTSIDE FACE OF BULKHEAD
2. LIFT LOOPS SHALL BE WOVEN STEEL CABLE WITH SAME MIN. DIAMETER (d) AS "A" BARS. WEAVE CABLE THROUGH HORIZONTAL "A" BARS. COAT EXPOSED POTION OF CABLE LIFT LOOPS WITH BITUMINOUS PAINT PRIOR TO BACKFILLING TRENCH
3. BULKHEAD SHALL BE CONSTRUCTED OF MINOR CONCRETE.



FRONT VIEW
PIPE BULKHEAD
(TEMPORARY)

6 TEMPORARY CONCRETE BULKHEAD

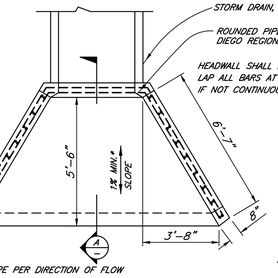
N.T.S.

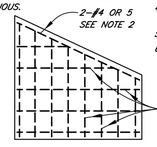


*VERTICAL BENCH HEIGHT MAY BE ADJUSTED BY SOIL ENGINEER AND/OR ENGINEERING GEOLOGIST TO MEET SPECIAL GEOTECHNICAL CONDITIONS.

BENCHING DETAIL

CITY OF ORANGE GRADING MANUAL (SEC. 9.2)
N.T.S.

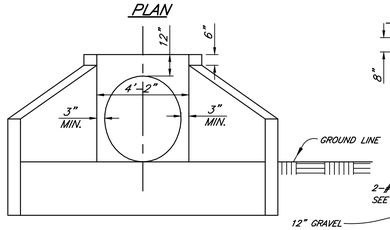




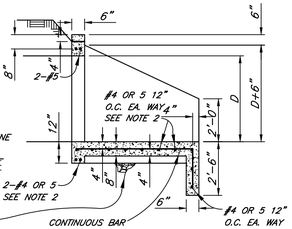
REINFORCING DETAIL

NOTES:
1. HEADWALL SHALL BE CONSTRUCTED OF CLASS A CONCRETE.
2. REINFORCING STEEL SHALL BE NO. 4 BARS FOR "W" UP TO 60". ABOVE "W"=60" NO. 5 BARS SHALL BE USED. 2" MIN. CLEARANCE, 30 DIA. LAP, ALL STEEL.
3. ADJACENT SLOPES SHALL BE 1-1/2 TO 1 OR FLATTER.
4. MULTIPLE PIPES TO BE SET WITH LONGITUDINAL CENTERS 1-2/3 DIA. APART.
5. ALL EXPOSED CORNERS TO BE ROUNDED 3/4" RADIUS.
6. W SHALL BE INCREASED WHEN MULTIPLE PIPES OR PIPES ON SKEW ARE USED.

PLAN



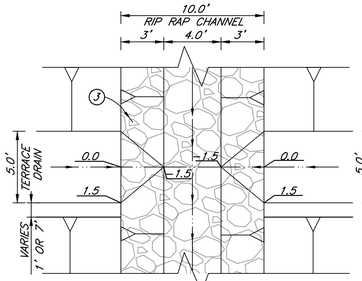
ELEVATION



SECTION A-A

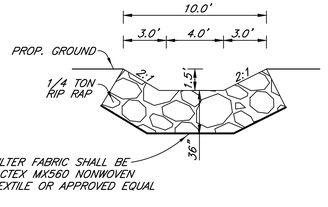
5 INLET HEADWALL DETAIL

NOT TO SCALE



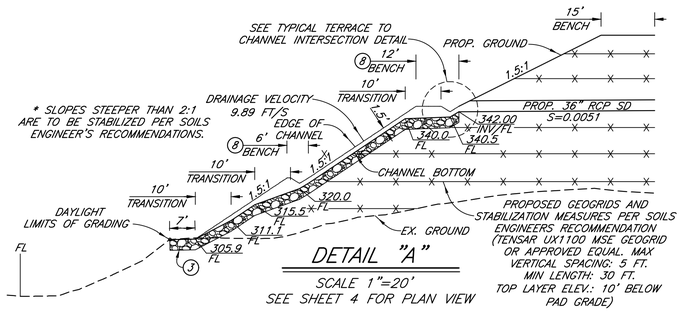
TERRACE TO CHANNEL INTERSECTION DETAIL

SCALE 1"=5'



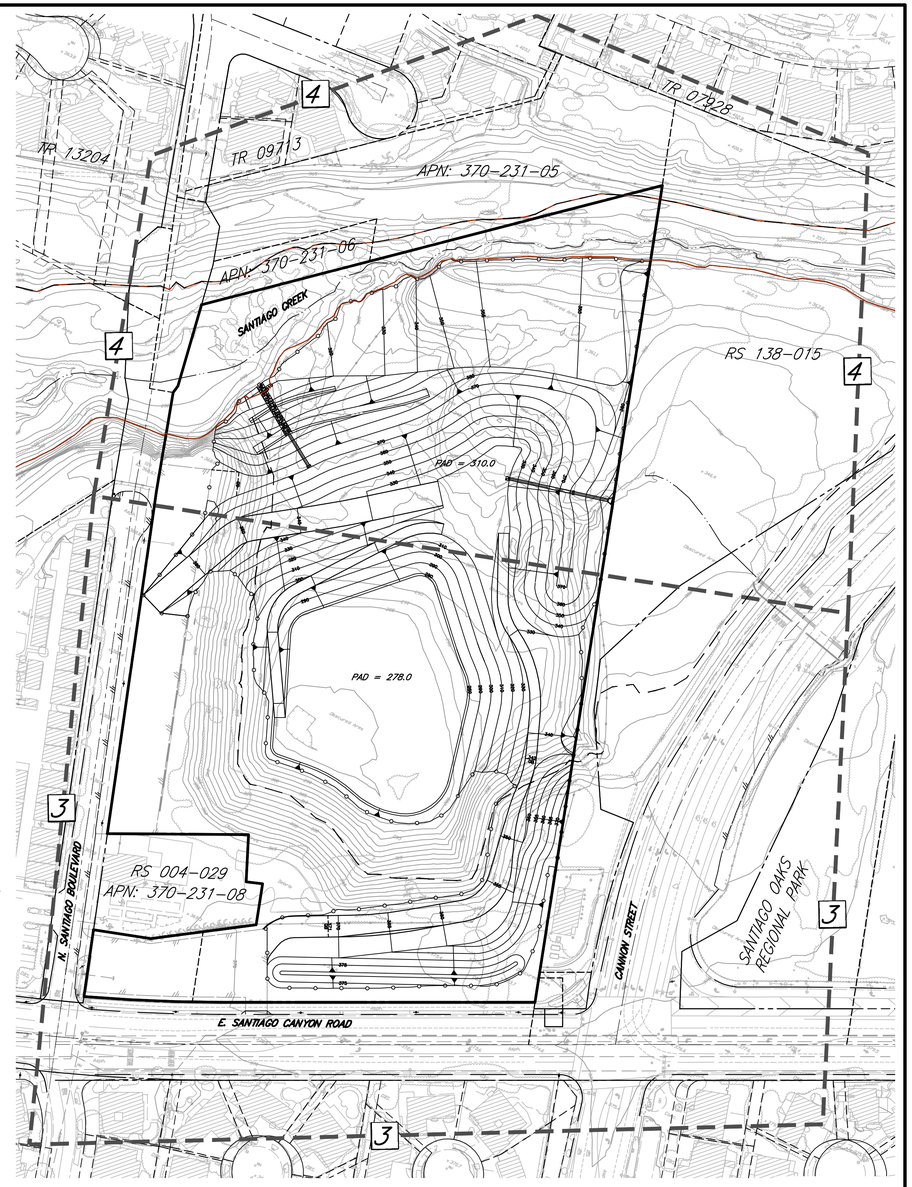
3 RIP RAP CHANNEL DETAIL

SCALE 1"=5'



DETAIL "A"

SCALE 1"=20'
SEE SHEET 4 FOR PLAN VIEW



INDEX MAP

SCALE: 1"=100'

ABBREVIATIONS:

AB	AGGREGATE BASE	EL	ELEVATION	PB	PULL BOX
AC	ASPHALTIC CONCRETE	EX	EXISTING	P.I.P.	PROTECT IN PLACE
AV	AIR VAC	EOP	EDGE OF PAVEMENT	PVI	POINT OF VERTICAL INTERSECTION
BC	BEGIN CURVE	FG	FINISHED GRADE	PVMT	PAVEMENT
BO	BLOW OFF	F/H	FIRE HYDRANT	R/W	RIGHT OF WAY
BCR	BEGIN CURB RETURN	FL	FLOWLINE	S	SANITARY SEWER (SIZE AS NOTED)
BVC	BEGIN VERTICAL CURVE	FS	FINISHED SURFACE	SMH	SEWER MANHOLE
CB	CATCH BASIN	G	GAS LINE (SIZE AS NOTED)	STA	STATION
℄	CENTERLINE	GB	GRADE BREAK	SW	SIDEWALK
C&G	CURB AND GUTTER	HP	HIGH POINT	TB	TRAFFIC BOX/ TRAFFIC FIBER BOX
CONC.	CONCRETE	INV	INVERT	TC	TOP OF CURB
DIA.	DIAMETER	L	LENGTH OR LENGTH OF ARC	W	WATER LINE (SIZE AS NOTED)
DWY	DRIVEWAY	LP	LOW POINT	WM	WATER METER
EC	END CURVE	MH	MANHOLE	WV	WATER VALVE
ECR	END CURB RETURN	ℙ	PROPERTY LINE	( )	EXISTING ITEM
EVC	END VERTICAL CURVE	PP	POWER POLE		

LEGEND:

- EXISTING RIGHT OF WAY
- EXISTING PARCEL LINES
- CENTERLINE
- EXISTING FENCE
- EXISTING CURB AND GUTTER
- EXISTING EDGE OF PAVEMENT
- EXISTING CONCRETE EDGE
- EXISTING SEWER
- EXISTING WATER
- EXISTING STORM DRAIN
- EXISTING GAS LINE
- EXISTING ELECTRICAL CONDUIT
- EXISTING TELEPHONE CONDUIT
- PROP. RIGHT OF WAY
- PROPERTY LINE
- EXISTING WALL
- PROPOSED CURB AND GUTTER
- EXISTING STREET LIGHT
- EXISTING POWER POLE/ TELEPHONE POLE
- TOP/TOE SLOPE
- DAYLIGHT/GRADING LIMITS
- CUT/FILL LINE
- EXISTING FLOODPLANE BOUNDARY
- PROPOSED FLOODPLANE BOUNDARY
- EXISTING CREEK FLOWLINE

INDEX MAP LEGEND:

- INDICATES PLAN SHEET NUMBER FOR PHASE 1
- INDICATES PLAN SHEET LIMIT

100' 0 100' 200'
SCALE: 1"=100'

1ST PLAN CHECK SUBMITTAL

Underground Service Alert
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811
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REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARNETT No.78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS			
No.	Date	Description	Approved

NOT TO SCALE

BENCH MARK
OC 31-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=10' SCALE

CITY OF ORANGE
ROUGH GRADING PLANS
QUANTITIES, INDEX, AND LEGEND

Drawing No.
Sh 2 of 6

R:\1545\FINAL\CONST\RGRD\PHASE 1\1545RGR02.dwg 10/01/19 12:19pm

SEE SHEET NO. 4

PAD = 320.0

PAD = 278.0

APN: 370-042-07

N.A.P.
APN: 370-231-08

N. SANTIAGO BOULEVARD

E. SANTIAGO CANYON ROAD

CANNON STREET

PROPOSED GRADING LIMITS

TEMP. 1.5:1 SLOPE

DIRT ACCESS ROAD

EXISTING FLOODPLAIN LIMITS PER CLOMR REPORT

PROPERTY BOUNDARY

PROP. GRADING LIMITS

EX. PAVEMENT PER SP-3961 PROTECT IN PLACE

EX. DRIVEWAY ACCESS PER SP-3961

EXIST. SANTIAGO CREEK TRAIL AND BIKE PATH

LANDSCAPING

BENCH

REMOVE EX. PAVEMENT

N17°51'36"W 483.65'

N64°24'04"E 197.17'

N17°17'56"W 66.30'

N70°29'04"E 22.88'

N17°05'36"W 38.12'

N56°36'24"E 148.42'

N72°41'25"E 80.76'

N17°51'36"W 94.46'

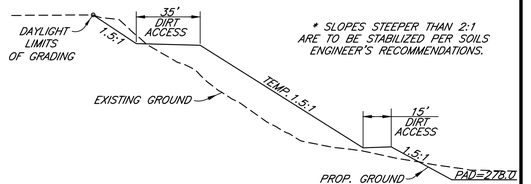
Δ=04°40'34" L=191.05 R=2341.00'

N63°59'15"E 439.38'

N17°09'39"W 1155.62'

PHASE 1 CONSTRUCTION NOTES

1. REMOVE EX. CHAINLINK FENCE
10. CONSTRUCT 4" A.C. OVER 4" A.B.
11. REMOVE EX. PAVEMENT.



* SLOPES STEEPER THAN 2:1 ARE TO BE STABILIZED PER SOILS ENGINEER'S RECOMMENDATIONS.

SECTION B-B

SCALE 1"=40'

SECTION C-C

SCALE 1"=40'

* SLOPES STEEPER THAN 2:1 ARE TO BE STABILIZED PER SOILS ENGINEER'S RECOMMENDATIONS.

SECTION D-D

SCALE 1"=40'

1ST PLAN CHECK SUBMITTAL

Underground Service Alert

Call: TOLL FREE 811

TWO WORKING DAYS BEFORE YOU DIG

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CIVIL ENGINEERS ◆ PLANNERS ◆ SURVEYORS
1880 COMPTON AVENUE, SUITE 100 ◆ CORONA, CA. 92881-3370 ◆ 951-734-2130

REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARRETT No. 78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS			
No.	Date	Description	Approved

BENCH MARK
OC JL-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=40'

CITY OF ORANGE
ROUGH GRADING PLANS
PHASE 1 CONDITION

Drawing No.

Sh 3 of 6

R:\1151\1545\FINAL_CONST\RGR01\PHASE 1\1545RGR03.dwg 10/01/19 12:20pm

PHASE 1 CONSTRUCTION NOTES

1. REMOVE EX. CHAINLINK FENCE
2. CONSTRUCT 36" 1/4 TON GROUTED RIP RAP
3. CONSTRUCT 36" 1/4 TON GROUTED RIP RAP CHANNEL PER DETAIL HEREON
4. CONSTRUCT 42" R.C.P. (2000-D)
5. CONSTRUCT PIPE CULVERT HEADWALL INLET STRUCTURE PER DETAIL ON SHEET 2.
6. INSTALL TEMPORARY CONCRETE BULKHEAD PER DETAIL HEREON
7. SLOPE TO BE STABILIZED PER SOILS ENGINEER RECOMMENDATION AND SECTION A-A HEREON.
8. INSTALL TERRACE DRAIN PER CITY OF ORANGE STD. 333
9. CONSTRUCT CONCRETE COLLAR PER CITY OF ORANGE STD. 320

LINE/CURVE TABLE				
NO.	BEARING/DELTA	RADIUS	LENGTH	TANGENT
1	N57°36'04"E	–	52.20'	–
2	N76°13'10"E	–	141.65'	–

E. STACEY LEE LN.

APN: 370-231-05

APN: 370-231-06

APN: 370-042-07

PROPERTY BOUNDARY

PROPOSED GRADING LIMITS

PROPOSED FLOODPLAIN LIMITS PER PROJECT CLOMR REPORT

SANTIAGO CREEK

N49°27'01"E 665.06'

N17°09'39"W 1155.62'

N09°49'59"W 118.33'

N10°12'44"E 11.18'

SEE DETAIL "A" ON SHEET 2

2:1 SLOPE

1:1.5 SLOPE

1.5:1 SLOPE

TEMP. 1.5:1 SLOPE

TOP OF BERM

12' BENCH

DIRT ACCESS ROAD

PAD = 320.0

PAD = 278.0

329.45 FL

307.0 FL

320.00 FL

326.61 FL

348.50 FL

342.00 FL/INV

342.27 INV

357.30 FL

320.00 INV

344.24 INV/TOB

344.50 INV

344.5 FG

345.00 FL

326.1 FG

S=0.2657

S=0.0025

S=0.0057

9.6%

7.8%

15.8%

13.3%

11.9%

10.0%

(370.00) FS

370.00 FG

EX. EOP

EX. C&G

EX. PP

EX. P.I.P.

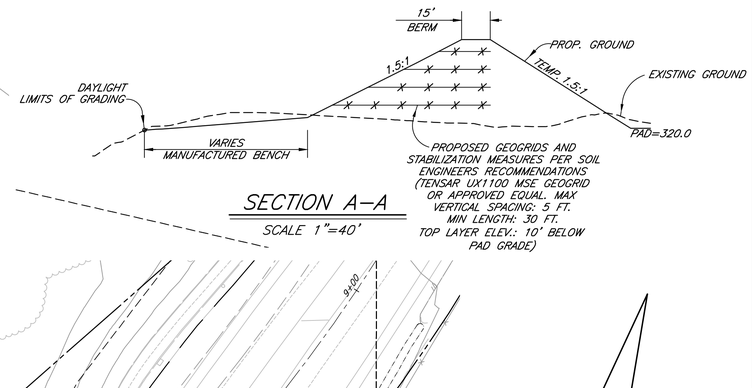
EX. GUY POLE

EX. R/W

8'

30'

SEE SHEET NO. 3



SECTION A-A

SCALE 1"=40'

PROPOSED GRADING LIMITS

OWNER SHALL OBTAIN OFFSITE GRADING AGREEMENT PRIOR TO GRADING ON ADJACENT PROPERTY

EXISTING DIRT SWALE TO REMAIN (1% MIN.)

EXISTING FLOODPLAIN LIMITS PER CLOMR REPORT

EX. R/W

EX. SCE

EX. 8" G

EX. C&G

EX. 42" SD

EX. 18" SD

CANNON STREET

EXISTING LOT LINE

(352.50) INV

(350.68) INV

(355.18 INV) (359.12 FL)

(354.42 INV) (359.12 FL)

7+00

8+00

9+00

6+00

40' 0 40' 80'

SCALE: 1"=40'

1ST PLAN CHECK SUBMITTAL

Underground Service Alert

Call: TOLL FREE 811

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REGISTERED PROFESSIONAL ENGINEER BRANDON M. DANNETT No. 78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS

No.	Date	Description	Approved

BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=40'

CITY OF ORANGE
ROUGH GRADING PLANS
PHASE 1 CONDITION

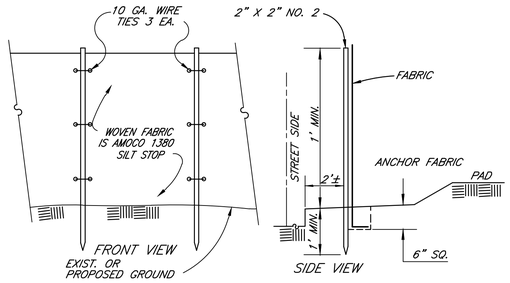
Drawing No.
Sh 4 of 6

R:\11545\FINAL CONST\RGRD\PHASE 1\11545RGRD04.dwg 10/01/19 12:21pm

EROSION CONTROL, SEDIMENT CONTROL, AND WATER QUALITY NOTES

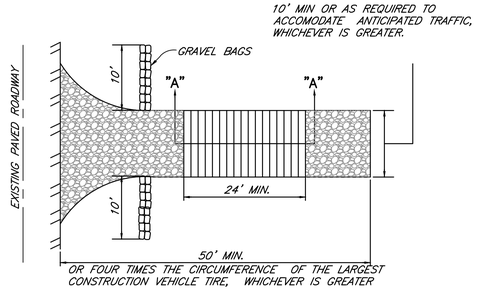
1. IN CASE OF EMERGENCY, CALL JEFF BARAN AT: (310) 722-1244 DURING BUSINESS HOURS, AND (310) 784-2907 ALL OTHER TIMES.
2. A STAND-BY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
3. THE CIVIL ENGINEER OR OTHER RESPONSIBLE INDIVIDUAL SHALL SUBMIT PLANS FOR REVIEW BY THE CITY ENGINEER DETAILING THE PLACING OF EROSION CONTROL FACILITIES TO PROTECT AREAS SUBJECT TO STORM DAMAGE. ALL DEVICES MUST BE IN PLACE AND WORKING AT ALL TIMES. FAILURE TO PROVIDE THESE DEVICES WILL BE CAUSE TO REVOKE PERMITS OR APPROVALS BY THE CITY ENGINEER AND/OR BUILDING OFFICIAL.
4. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE CITY INSPECTOR.
5. EXCEPT AS OTHERWISE APPROVED BY THE CITY INSPECTOR, REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY OR ON WEEKENDS WHEN THE 5 DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
6. THE PLACEMENT OF ADDITIONAL DEVICES TO REDUCE EROSION DAMAGE WITHIN THE SITE IS LEFT TO THE DISCRETION OF THE FIELD ENGINEER.
7. DESILTING BASINS MAY NOT BE REMOVED OR MADE INOPERABLE WITHOUT PRIOR APPROVAL OF THE CITY INSPECTOR.
8. EROSION CONTROL DEVICES SHALL BE MODIFIED AS NEEDED AS THE PROJECT PROGRESSES, AND PLANS OF THESE CHANGES SUBMITTED FOR APPROVAL AS REQUIRED.
9. INSURE THAT ALL EXISTING DRAINAGE COURSES AND CULVERTS ARE MAINTAINED IN WORKING CONDITION AND FREE OF SILT & DEBRIS.
10. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
11. ALL LOOSE SOIL AND DEBRIS WHICH MAY CREATE A POTENTIAL HAZARD TO OFFSITE PROPERTY SHALL BE REMOVED FROM THE SITE AS DIRECTED BY THE INSPECTOR.
12. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING BASINS AND BASINS PUMPED DRY.
13. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
14. APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.
15. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REMOVE SEDIMENT AND OTHER POLLUTANTS.
16. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
17. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
18. FILL SLOPES AT THE SITE PERIMETER MUST DRAIN AWAY FROM THE TOP OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
19. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS TWO (2) FEET.
20. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ARE ALLOWED ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.

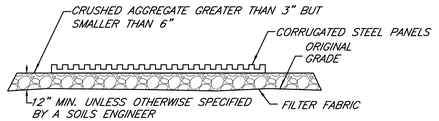
    POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIME, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS, ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; AND SUPERCHLORINATED POTABLE WATER LINE FLUSHINGS.
21. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
22. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
23. TAKE NECESSARY PRECAUTIONS TO INSURE THAT ADJACENT PROPERTY NOT SUFFER DAMAGE DUE TO DEBRIS, MUD, OR INUNDATION CAUSED BY GRADING ACTIVITIES WITHIN PERMITTED AREA.
24. PLACE EROSION PROTECTION AROUND ALL OUTLETS OF DOWNDRAINS THAT ARE NOT FULLY CONNECTED TO THE ULTIMATE DRAINAGE DEVICE.
25. PLACE EROSION PROTECTION AROUND ALL ULTIMATE INLETS WHILE THE POSSIBILITY OF SILTATION EXISTS PRIOR TO ULTIMATE SLOPE PLANTING BECOMING EFFECTIVE.
26. RESTORE ALL VEGETATION AND PLANTING ON THE EXISTING SLOPE TO ORIGINAL CONDITION.



1 SILT FENCE

N.T.S.



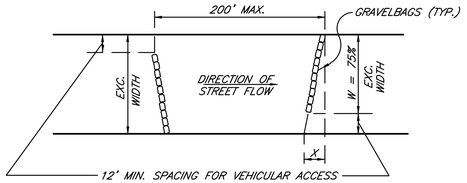


SECTION "A" – "A"

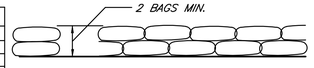
N.T.S.

2 STABILIZED CONSTRUCTION ACCESS DETAIL

N.T.S.



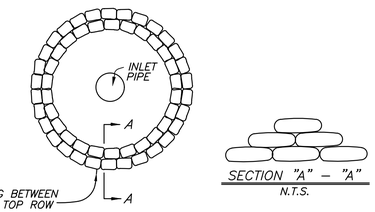
W	X
20'-30'	5
31'-40'	7
41'-50'	9
51'-60'	10.5
61'-70'	12



STREET GRADE	LENGTH
LESS THAN 4%	200'
4% TO 9%	100'
> 9%	50'

4 GRAVELBAG VELOCITY REDUCER IN STREET

N.T.S.

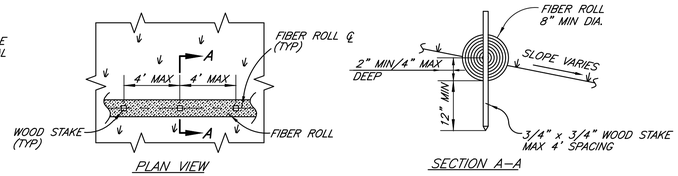


SECTION "A" – "A"

N.T.S.

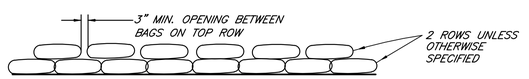
5 INLET PROTECTION

N.T.S.



6 FIBER ROLLS

N.T.S.



7 GRAVELBAG BARRIERS

N.T.S.

LEGEND

- PROPOSED CURB & GUTTER
- EXISTING CURB & GUTTER
- PROPOSED RIGHT OF WAY
- EXISTING EDGE OF PAVEMENT
- EXISTING PROPERTY LINE
- EXISTING RIGHT OF WAY
- EXISTING CENTERLINE
- MSA — MATERIAL STORAGE AND LOADING/UNLOADING AREA
- EMA — EQUIPMENT MAINTENANCE, WASH AND FUELING AREA
- CWA — CONCRETE WASHOUT AREA
- WSA — WASTE STORAGE AREA
- 7 — ONSITE SANITATION AREA (TOILETS)
- GRAVELBAGS
- SILT FENCE
- PROPOSED SLOPE
- P — PROPOSED SHEET FLOW
- EXIST. — EXISTING SHEET FLOW
- HYDROSEED/MULCH

EROSION CONTROL CONSTRUCTION NOTES:

1. INSTALL SILT FENCE PER DETAIL HEREON.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE PER DETAIL HEREON.
3. HYDROSEED/MULCH SLOPES.
4. INSTALL GRAVEL BAG VELOCITY REDUCER PER DETAIL HEREON.
5. INSTALL INLET PROTECTION PER DETAIL HEREON.
6. INSTALL FIBER ROLL PER DETAIL HEREON.
7. INSTALL GRAVELBAG BARRIER PER DETAIL 7 HEREON.

REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARRETT No. 78472 Exp. 9/30/17 CIVIL STATE OF CALIFORNIA

1ST PLAN CHECK SUBMITTAL

Underground Service Alert

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TWO WORKING DAYS BEFORE YOU DIG

WDID NO. 8301026802

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REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARRETT No. 78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS

No.	Date	Description	Approved

BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=40'

CITY OF ORANGE
ROUGH GRADING PLANS
EROSION CONTROL – TITLE SHEET

Drawing No.

Sh 5 of 6

R:\15\1545\FINAL\CONST\RGRD\PHASE 1\15456RGD05.dwg 10/01/19 12:22pm

EROSION CONTROL CONSTRUCTION NOTES:

1. INSTALL SILT FENCE PER DETAIL ON SHEET 5.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE PER DETAIL ON SHEET 5.
3. HYDROSEED/MULCH SLOPES.
4. INSTALL GRAVEL BAG VELOCITY REDUCER PER DETAIL ON SHEET 5.
5. INSTALL INLET PROTECTION PER DETAIL ON SHEET 5.
6. INSTALL FIBER ROLL PER DETAIL ON SHEET 5.

1ST PLAN CHECK SUBMITTAL

Underground Service Alert

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TWO WORKING DAYS BEFORE YOU DIG

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REGISTERED PROFESSIONAL ENGINEER
BRANDON M. BARNETT
No. 78472
CIVIL
STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

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Reference Plans for these Improvements

REVISIONS			
No.	Date	Description	Approved

BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale, 1"=60'

CITY OF ORANGE
ROUGH GRADING PLANS
EROSION CONTROL – PHASE 1

Drawing No.

Sh 6 of 6

R:\15\1545\FINAL_CONST\RGRD\PHASE 1\1545RGR06.dwg 10/01/19 12:22pm

CITY OF ORANGE
ROUGH GRADING PLAN PHASE 2
CHANDLERS SAND AND GRAVEL
APN 370-231-14, ADJACENT TO 1425 N. SANTIAGO BLVD. ORANGE, CA. 92869

GRADING NOTES:

1. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO BEGINNING ANY GRADING OR CONSTRUCTION. CALL CITY INSPECTOR 714-744-5526 TO ARRANGE MEETING TIME.
2. ALL GRADING SHALL BE DONE IN ACCORDANCE WITH THE CITY OF ORANGE MANUAL OF GRADING AND STANDARD PLANS AND SPECIFICATIONS (AVAILABLE ON CITY WEBSITE OR AT THE ENGINEERING OFFICE).
3. CITY APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER FROM RESPONSIBILITY FOR THE CORRECTION OF ANY ERROR AND/OR OMISSION DISCOVERED DURING THE CONSTRUCTION. ANY SUBSTANTIAL CHANGES TO THE APPROVED GRADING PLAN OCCASIONED BY FIELD CONDITIONS, SITE PLAN CHANGES, ETC. SHALL BE ACCOMPLISHED PRIOR TO FINAL GRADING, AND SHALL BE REVIEWED AND APPROVED BY THE CITY ENGINEER PRIOR TO IMPLEMENTING CHANGES IN THE FIELD.
4. RETAINING WALLS WILL BE REQUIRED WHERE CUTTING OR FILLING ALONG PROPERTY LINES MAY CAUSE DAMAGE, BUT ALWAYS WHERE THE CUT OR FILL EXCEEDS ONE (1) VERTICAL FOOT.
5. FREE STANDING AND RETAILING WALLS SHOWN ON THIS PLAN ARE FOR LOCATION AND ELEVATION CONTOURS ONLY. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE STRUCTURAL APPROVAL OF ANY WALLS OR RETAINING DEVICES SHOWN HEREON. A SEPARATE PLAN CHECK AND PERMIT MUST BE OBTAINED FROM THE CITY BUILDING DIVISION BEFORE THE CONSTRUCTION OF ANY WALLS.
6. ALL ON-SITE SLOPES SHALL NOT EXCEED A GRADE OF TWO (2) HORIZONTAL TO ONE (1) VERTICAL (2:1), UNLESS STEEPER SLOPES ARE AUTHORIZED BY THE SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER.
7. A GRADING PERMIT MUST BE OBTAINED FROM THE CITY ENGINEERING DIVISION BY THE OWNER, DEVELOPER, OR GENERAL CONTRACTOR PRIOR TO CONDUCTING ANY GRADING, CLEARING, BRUSHING, OR GRUBBING ON NATURAL OR EXISTING GRADE THAT IS PREPARATORY TO GRADING.
8. ALL ROUGH AND FINAL GRADING SHALL BE CERTIFIED TO BE IN COMPLIANCE WITH THE APPROVED GRADING PLAN AND CITY STANDARDS. THESE CERTIFICATIONS SHALL BE IN WRITING TO THE CITY ENGINEER AND SHALL BE SIGNED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR, SOILS OR GEOTECHNICAL ENGINEER, AND GRADING CONTRACTOR. THESE CERTIFICATIONS SHALL BE FILED WITH THE CITY PRIOR TO THE RELEASE OF OCCUPANCY.
9. LANDSCAPING AND IRRIGATION PLANS, AS REQUIRED, SHALL BE APPROVED BY THE CITY DEPARTMENT OF COMMUNITY DEVELOPMENT 714-744-7220.
10. PROVIDE STREET TREES AS REQUIRED BY THE CITY. NOTIFY DEPARTMENT OF PUBLIC WORKS, MAINTENANCE DIVISION, 714-532-6480 FOR STREET TREE LOCATION AND PLANTING STANDARDS.
11. ALL FILL ONE (1) FOOT OR GREATER SHALL BE TESTED AND CERTIFIED AS TO RELATIVE COMPACTION.
12. FILL SLOPES THREE (3) FEET OR GREATER IN HEIGHT SHALL BE COMPACTED TO THE FACE. THE SOILS ENGINEER SHALL INCLUDE SLOPE COMPACTION TESTS IN THE FINAL REPORT FOR ROUGH GRADING.
13. ALL UTILITY TRENCH BACKFILLS SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SOILS ENGINEER. THE SOILS ENGINEER SHALL PROVIDE WRITTEN APPROVAL OF UTILITY TRENCH BACKFILL PRIOR TO FINAL GRADING RELEASE.
14. ALL FILL SHALL BE COMPACTED IN ACCORDANCE WITH THE CURRENT VERSION OF THE CALIFORNIA BUILDING CODE ADOPTED BY THE CITY OR RESPONSIBLE ENGINEERING RECOMMENDATIONS.
15. IN THE EVENT THE LICENSED PROFESSIONAL ENGINEER, LAND SURVEYOR, SOILS ENGINEER, OR ENGINEERING GEOLOGIST WHO IS RESPONSIBLE FOR THE PROFESSIONAL SUPERVISION OF THAT PORTION OF THE GRADING WHICH IS WITHIN HIS AREA OF TECHNICAL COMPETENCE IS RELIEVED OF OR OTHERWISE TERMINATES HIS DUTIES PRIOR TO COMPLETION OF THE WORK SHOWN ON THESE PLANS HE SHALL REPORT THIS FACT IN WRITING TO THE CITY ENGINEER WITHIN 48 HOURS OF HIS TERMINATION. PERSON ASSUMING HIS DUTIES SHALL PERFORM ALL INVESTIGATIONS HE DEEM NECESSARY TO APPROVE THE ENTIRE WORK INCLUDING CERTIFYING THAT PREVIOUS REPORTS ARE IN CONFORMANCE WITH CITY GRADING ORDINANCE AND THE GRADING PERMIT. ACCEPTANCE OF THE PROJECT BY THE NEW CONSULTANT SHALL BE MADE IN WRITING TO THE CITY, AND SHALL INCLUDE HIS CERTIFICATION OF ALL WORK PREVIOUSLY ACCOMPLISHED AND HIS RESPONSIBILITY FOR THE REMAINDER OF THE PROJECT.
16. REPAIR OR REPLACE ANY BROKEN OR DETERIORATED ADJACENT PUBLIC INFRASTRUCTURE INCLUDING DAMAGED PUBLIC SIDEWALK, DAMAGED CURB AND GUTTER, AND DAMAGED DRIVEWAY APRONS.
17. ALL UTILITY LINES FROM PUBLIC STREET AND EASEMENT, INCLUDING POWER LINES AND TELECOMMUNICATION LINES SHALL BE CONSTRUCTED UNDERGROUND.
18. A SEPARATE ENCROACHMENT PERMIT IS REQUIRED FOR WORK PERFORMED IN PUBLIC RIGHT-OF-WAY.
19. A SEPARATE HAUL PERMIT IS REQUIRED FOR IMPORT/EXPORT OF EARTH MATERIAL. CONTACT TRAFFIC DIVISION AT 714-744-5536 FOR MORE DETAILS.

LEGAL DESCRIPTION:

THAT PART OF LOT 5, BLOCK "A" OF THE LAND OF OGE AND BOND, AS SHOWN ON A MAP RECORDED IN BOOK 3, PAGES 430 AND 431 OF MISCELLANEOUS RECORDS OF LOS ANGELES COUNTY, CALIFORNIA.

ALSO EXCEPT THEREFROM, THAT PORTION DESCRIBED IN PARCEL Y32-104 OF THAT CERTAIN FINAL ORDER OF CONDEMNED, SUPERIOR COURT CASE NO. 151237, A CERTIFIED COPY OF WHICH WAS RECORDED MAY 22, 1967 IN BOOK 8259, PAGE 279 OF OFFICIAL RECORDS OF ORANGE COUNTY, CALIFORNIA.

ALSO EXCEPT THEREFROM, THAT PORTION DESCRIBED IN DEED TO THE CITY OF ORANGE, A MUNICIPAL CORPORATION, RECORDED JULY 19, 1991 AS INSTRUMENT NO. 91-378561 OF OFFICIAL RECORDS.

ALSO EXCEPT THEREFROM, THAT PORTION DESCRIBED IN DEED TO THE CITY OF ORANGE, A MUNICIPAL CORPORATION, RECORDED MAY 23, 2011 AS INSTRUMENT NO. 20110000254055 AND RE-RECORDED MARCH 15, 2012 AS INSTRUMENT NO. 20120000148952 BOTH OF OFFICIAL RECORDS.

BENCH MARK:

BENCH MARK NO. OC 3L-32-71 ; ELEVATION: 385.466 MSL; VERTICAL DATUM: NAVD88. ALUMINUM BENCHMARK DISK STAMPED "3L-32-71", SET IN THE TOP OF A CONCRETE POST. MONUMENT IS LOCATED IN THE SOUTHWESTERLY CORNER OF THE INTERSECTION OF SANTIAGO CANYON ROAD AND CABRILLO STREET MONUMENT IS SET LEVEL WITH THE TOP OF THE CURB.

BASIS OF BEARING

THE BEARINGS SHOWN HEREON ARE BASED UPON THE CCS83, ZONE 6, 2007 EPOCH ADJUSTMENT. POINT # 3191.

GENERAL NOTES:

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF ORANGE STANDARD PLANS AND SPECIFICATIONS, AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. (GREEN BOOK)
2. PUBLIC AND PRIVATE UTILITIES AND THE ACCOMPANYING SUBSTRUCTURES SHOWN ON THESE PLANS ARE FROM AVAILABLE PUBLIC DATA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES AND SUBSTRUCTURES WITHIN THE CONSTRUCTION LIMITS. DAMAGE TO SUCH RESULTING FROM CONSTRUCTION OPERATIONS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. ALL UNDERGROUND UTILITY AND OTHER SUBSURFACE WORK SHALL BE COMPLETED PRIOR TO COMPLETING THE FINAL SURFACING OR LANDSCAPING. SEWER LATERALS TO BE INSTALLED PRIOR TO CURB AND GUTTER.
4. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING UTILITIES REGARDING ANY PROBLEMS.

MICAH JEAN	CITY OF ORANGE STREET TREES	714-532-6470
JIMMY ROCHA	CITY OF ORANGE TRAFFIC DIVISION	714-532-6428
PHYLLIS THEN	CITY OF ORANGE TRANSPORTATION PERMIT	714-744-5536
SON TRAN	CITY OF ORANGE WATER DIVISION	714-288-2497
DAVID ZAPALAC	AT&T (TELEPHONE SERVICES)	714-237-6949
VALENTINA GIPSON	AT&T (LIAISON)	714-666-5467
GREG BURNETT	KINDER MORGAN	909-873-5174
ROBERT HOERNING	MCI - WORLDCOM	714-923-5900
JASON KING	XO COMMUNICATIONS, INC.	949-417-7430
WALTER WERSTIUK	AT&T	714-963-7964
MICHAEL ORDUNO	SOUTHERN CALIFORNIA EDISON	626-302-4387
DIANA CABALLERO	SOUTHERN CALIFORNIA GAS DISTRIBUTION	714-634-3115
ROSALYN SQUIRES	SOUTHERN CALIFORNIA GAS TRANSMISSION	818-701-4546
CHRIS DONNELLY	TIME WARNER COMMUNICATIONS	714-903-8307
MARK STRICKERT	ORANGE COUNTY TRANSPORTATION AUTHORITY	714-560-5883
MALCOLM BROWN	VERIZON WIRELESS	949-286-8772
JIM BASSLER	QWEST COMMUNICATION	562-777-2225
ERNIE MORRIS	LEVEL 3 COMMUNICATIONS	858-292-2134

5. FOR INSPECTION, CONTACT CITY OF ORANGE PUBLIC WORKS, 714-744-5526, FORTY-EIGHT (48) HOURS PRIOR TO THE REQUIRED DATE.
6. THE CONTRACTOR SHALL NOTIFY CITY OF ORANGE PUBLIC WORKS MAINTENANCE DIVISION, 714-532-5480, SEVENTY-TWO HOURS PRIOR TO ANY ROAD CLOSURE AND/OR DETOUR.
7. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (DIAL 811 OR 1-800-227-2600) FORTY-EIGHT HOURS PRIOR TO THE REQUIRED DATE.
8. ALL PIPELINES AND SUBSTRUCTURES ARE TO BE CONSTRUCTED BEGINNING FROM THE DOWNSTREAM END. VERIFY DOWNSTREAM POINTS OF CONNECTION (HORIZONTAL AND VERTICAL LOCATIONS) PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE CITY OF ORANGE.
9. CONSTRUCTION SURVEY WORK FOR THE LINES AND GRADES FOR CONSTRUCTION OF THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL PRESERVE ALL PERMANENT SURVEY MARKERS INCLUDING ALL CENTERLINE TIES AS SPECIFIED IN SECTION 2-9.1 OF THE CITY OF ORANGE STANDARD PLANS AND SPECIFICATIONS.
11. THE ENGINEER REPRESENTS THAT HE HAS MADE A REASONABLE ENGINEERING DETERMINATION THAT THERE ARE NO UNDERGROUND UTILITY LINES OR STRUCTURES EXCEPT AS SHOWN ON THESE PLANS.
12. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL UTILITY LINES AND SUBSTRUCTURES.
13. NO DRIVEWAY OPENINGS TO BE CONSTRUCTED WITHIN THREE FEET OF A FIRE HYDRANT OR CURB RETURN.
14. INSTALL STREET LIGHTS AS REQUIRED BY THE PUBLIC WORKS DEPARTMENT SPECIFICATIONS AND SPECIAL PROVISIONS FOR STREET LIGHTS AND IN ACCORDANCE WITH CITY STANDARD PLAN 415.
15. INSTALL STREET TREES AS REQUIRED BY THE CITY COMMUNITY SERVICES DEPARTMENT.
16. LANDSCAPING AND IRRIGATION PLANS AS REQUIRED SHALL BE APPROVED BY THE COMMUNITY SERVICES DEPARTMENT.
17. ALL STREET SIGNS, MARKERS, AND STREET MARKINGS SHALL BE FURNISHED AND INSTALLED BY DEVELOPER IN ACCORDANCE WITH CITY STANDARD PLAN 414.
18. ALL STREET CONSTRUCTION SHOWN IS BASED ON STREET CENTERLINE STATIONS AND ELEVATIONS.
19. AN ENCROACHMENT PERMIT FROM THE CITY PUBLIC WORKS DEPARTMENT IS REQUIRED FOR ALL WORKS WITHIN PUBLIC RIGHT OF WAY.
20. AT THE COMPLETION OF THE CONSTRUCTION, SUBMIT TO THE CITY CONSTRUCTION INSPECTOR A COMPLETE SET OF VIDEO INSPECTION OF THE SEWER SYSTEM AND THE STORM DRAIN SYSTEM. THE VIDEO INSPECTION SHALL BE FOR THE ENTIRE LENGTH OF THE SYSTEM. LOCATION AND STATIONING INFORMATION SHALL BE INCLUDED IN THE VIDEO RECORDING.
21. FOR CONSTRUCTION WITHIN THE OLD TOWNE AREA, THE CONCRETE COLOR AND FINISH SHALL BE REGULAR CONCRETE MIX WITH AN APPLICATION OF WATER-BASED TOP-SURFACE RETARDER THAT IS WASHED AWAY USING PRESSURED WATER FOR A SAND BLAST FINISH EFFECT. THE RETARDER SHALL BE GRADE 05 - POWDER BLUE VIOLET (COLOR CODED) PER GRACE CONSTRUCTION PRODUCTS (WWW.GRACECONSTRUCTION.COM (877) 423-6491) OR APPROVED EQUAL.

GRADING MANUAL NOTES:

1. THE GROUND SURFACE SHALL BE PREPARED TO RECEIVE FILL BY REMOVING VEGETATION, NON-COMPLYING FILL, TOPSOIL AND OTHER UNSUITABLE MATERIALS, AND BY SCARIFYING TO PROVIDE A BOND WITH NEW FILL. WHERE EXISTING SLOPES EXCEED 5 FEET IN HEIGHT AND/OR ARE STEEPER THAN FIVE HORIZONTAL TO ONE VERTICAL (5:1), THE GROUND SURFACE AT THE TOE OF FILL SHALL BE PREPARED BY BENCHING INTO SOUND BEDROCK OR OTHER COMPETENT MATERIAL, AS DETERMINED BY THE GEOTECHNICAL ENGINEER AND/OR ENGINEERING GEOLOGIST AND APPROVED BY THE CITY ENGINEER. THE LOWERMOST BENCH BENEATH THE TOE OF A FILL SLOPE SHALL BE A MINIMUM OF 10 FEET IN WIDTH. THE GROUND SURFACE AT THE TOE OF THE FILL SHALL BE PREPARED FOR SHEET FLOW RUNOFF, OR A PAVED DRAIN SHALL BE PROVIDED.
2. WHEN AN EXISTING FILL IS TO BE WIDENED OR A NEW FILL IS TO BE MADE, THE NEW MATERIAL SHALL BE BONDED TO THE OLD BY PLOWING DEEP LONGITUDINAL FURROWS OR OTHER METHOD BY THE CITY ENGINEER.
3. WHERE FILL IS TO BE PLACED OVER A CUT SLOPE, THE BENCH UNDER THE TOE OF THE FILL SHALL BE AT LEAST FIFTEEN (15) FEET WIDE, BUT THE CUT SLOPE MUST BE MADE BEFORE PLACING FILL AND SHALL MEET THE APPROVAL OF THE GEOTECHNICAL ENGINEER AND/OR ENGINEERING GEOLOGIST AS SUITABLE FOUNDATION FOR FILL.

NOTICE TO CONTRACTORS:

WORKING HOURS; THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE CITY, THE OWNER, AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.

THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA)PHONE 1-800-422-4133, TWO (2) WORKING DAYS PRIOR TO DIGGING. NO CONSTRUCTION PERMIT ISSUED BY THE PUBLIC WORKS DEPARTMENT SHALL BE VALID INVOLVING UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS AN INQUIRY NUMBER ISSUED BY U.S.A.

CARE SHOULD BE TAKEN TO PREVENT GRADED DITCHES AND SWALES FROM UNDERMINING STREET IMPROVEMENTS. UPON INSPECTION OF THE SITES, THE CITY ENGINEER MAY REQUIRE TEMPORARY GUNITE SWALES, ENTERING OR LEAVING IMPROVEMENTS.

OWNER/DEVELOPER:

CHANDLERS SAND AND GRAVEL
17392 DIAMLER ST.
IRVINE, CA, 92614
(310) 784-2907
ATTN: JOHN ROBERTSON

ENGINEER:

KWC ENGINEERS
1880 COMPTON AVENUE, SUITE 100
CORONA, CA. 92881-3370
(951) 734-2130
ATTN: BRANDON M. BARNETT, P.E., P.L.S.

SITE ADDRESS:

CHANDLERS SAND AND GRAVEL
1425 N. SANTIAGO BLVD.
ORANGE, CA. 92869
(310) 784-2907
ATTN: JOHN ROBERTSON

SOILS ENGINEER:

GINTER & ASSOCIATES, INC.
27631 DURAZNO
MISSION VIEJO, CA. 92692
(714) 581-2363
ATTN: DAVE GINTER, GE

SOILS ENGINEER:

THIS PLAN HAS BEEN REVIEWED BY DAVE GINTER AND APPEARS TO BE IN GENERAL CONFORMANCE WITH THE RECOMMENDATIONS IN OUR REPORT DATED MAY 6, 2016 PROJECT NO. 177-01 THIS PLAN HAS BEEN REVIEWED FOR GEOTECHNICAL ASPECTS ONLY. WE MAKE NO REPRESENTATION REGARDING ACCURACY OF DIMENSIONS, QUANTITIES, MEASUREMENT, CALCULATIONS OR ANY PORTION OF THE DESIGN. GEOTECHNICAL CONDITIONS AND RECOMMENDATIONS SHOULD BE CONFIRMED BY THE GEOTECHNICAL CONSULTANT IN THE FIELD AT THE TIME OF CONSTRUCTION.

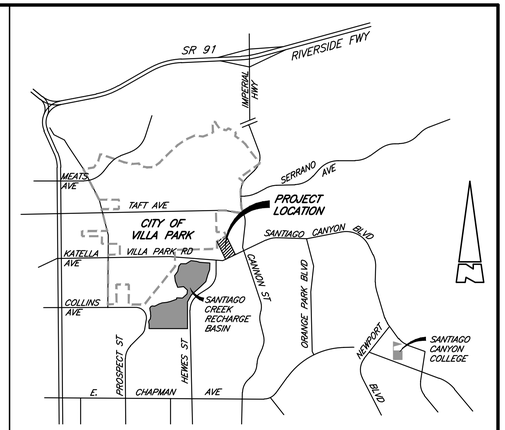
SOILS ENGINEER: RCE# GE# EXP:

ENGINEERING GEOLOGIST: CEG# EXP:

RESPONSIBILITY FOR SPILLS ON COUNTY/ORANGE COUNTY FLOOD CONTROL DISTRICT PROPERTY:

i. ANY PERMITTEE SPILLAGE OF FUEL, OIL OR HAZARDOUS MATERIALS FROM EQUIPMENT OR VEHICLES MUST BE IMMEDIATELY AND PROPERLY CLEANED UP AND REMOVED FROM THE COUNTY/ORANGE COUNTY FLOOD CONTROL DISTRICT (OCFCD) RIGHT-OF-WAY. FOR SPILLS OF SIGNIFICANT VOLUME, NOTIFICATIONS MUST BE IMMEDIATELY MADE TO OC PUBLIC WORKS / WATER QUALITY COMPLIANCE FOR ASSESSMENT OF APPROPRIATE CORRECTIVE ACTION. CONTAMINATED SOIL, SAND OR OTHER MATERIAL AND HAZARDOUS WASTES GENERATED FROM THE CLEANUP MUST BE DISPOSED OF BY APPROVED METHODS.

ii. PERMITTEE ASSUMES FULL RESPONSIBILITY FOR COSTS TO INVESTIGATE EXTENT OF CONTAMINATION, CLEANUP, WASTE REMOVAL AND IMPLEMENTATION OF AN APPROVED REMEDIAL ACTION PLAN FOR THE RELEASE OF ANY WASTES OR HAZARDOUS MATERIALS THAT RESULT IN SOIL, SURFACE WATER AND GROUNDWATER CONTAMINATION. NOTIFICATIONS TO OC PUBLIC WORKS/WATER QUALITY COMPLIANCE FOR ANY ISSUES INCLUDING EMERGENCY OR AFTER-HOURS INCIDENTS SHOULD BE DIRECTED TO (877) 89-SPILL. ALTERNATIVELY, EMERGENCY NOTIFICATIONS MAY ALSO BE MADE THROUGH THE ORANGE COUNTY SHERIFF'S COMMUNICATIONS CONTROL 1 BY DIALING 911.



VICINITY MAP
N.T.S.

SHEET INDEX

ESTIMATED EARTHWORK QUANTITIES - PHASE 2

ON-SITE EARTHWORK QUANTITIES FOR PHASE 2 ULTIMATE GRADING

GRADING SUMMARY	CUT (C.Y.)	FILL (C.Y.)
PHASE 2 - RAW QUANTITIES	733	673,822

TOTAL PROJECT AREA = 15.22 ACRES

PHASE 2 AREA OF DISTURBANCE = 10.08 ACRES

NOTE: THE ABOVE QUANTITIES HAVE BEEN ESTIMATED BY THE ENGINEER FOR PERMIT PURPOSES ONLY! THE CONTRACTOR SHALL DETERMINE HIS OWN QUANTITIES AND HE IS SOLELY RESPONSIBLE FOR DETERMINING THE AMOUNT AND COST OF IMPORT/EXPORT AND OTHER GRADING QUANTITIES FOR THIS PROJECT.

NOTE:

INERT DEBRIS ENGINEERED FILL OPERATIONS SHALL COMPLY WITH REQUIREMENTS AS SET FORTH IN CCR, TITLE 14 SECTION 17388.3

1ST PLAN CHECK SUBMITTAL

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COUNTY PERMIT: 2016-00479 | WDID NO. 8301026802
USFWS PERMIT: TE22477D-0 | .

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REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARNETT No. 78472 CIVIL STATE OF CALIFORNIA

Designed by MLL | Drawn by MLL | Checked by BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS			
No.	Date	Description	Approved

BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale AS NOTED

Reviewed By:
Date Planning Division

Recommended:
Date Principal Civil Engineer

Reviewed For Compliance To City Of Orange Grading Ordinance:
Date Assistant Public Works Director/ City Engineer
Date Public Works Director

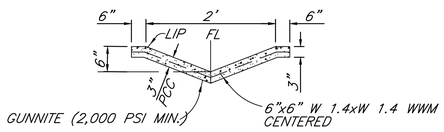
CITY OF ORANGE
ROUGH GRADING PLANS
TITLE SHEET

Drawing No. SP-4104-2
Sh 1 of 7

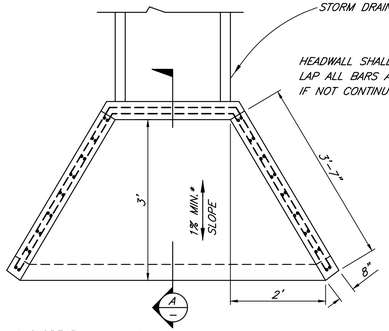
R:\15\1545\FINAL\CONST\ROUGH\PHASE 2\1545ROT01.dwg 10/01/19 12:32pm

PHASE 2 CONSTRUCTION NOTES

20	CONSTRUCT DESILTING BASIN & RISER PER CITY OF ORANGE STD. 337 & DETAIL ON SHEET 4.	1	EA.
21	CONSTRUCT 42" R.C.P. (SEE PROFILE FOR D-LOAD AND CLASS) PIPE BEDDING PER CITY OF ORANGE STD. 327	385	L.F.
22	REMOVE EXISTING BLOCK WALL	280	L.F.
23	REMOVE EXISTING PAVEMENT	43,500	S.F.
24	CONNECT TO EXISTING STORM DRAIN WITH A CONCRETE COLLAR PER CITY OF ORANGE STD. 320	2	EA.
25	CONSTRUCT 24" R.C.P. (2000-D) PIPE BEDDING PER CITY OF ORANGE STD. 327	8	L.F.
26	CONSTRUCT JUNCTION STRUCTURE TYPE 1 PER CITY OF ORANGE STD. 313	3	E.A.
27	CONSTRUCT 3' GUNNITE BROW DITCH PER DETAIL ON SHEET 2	568	L.F.
28	CONSTRUCT 12" H.D.P.E. DR17. TRENCHING AND BEDDING PER DETAIL ON SHEET 5	917	L.F.
29	REMOVE EXISTING CONCRETE COLLAR OR BULKHEAD	2	EA.
30	CONSTRUCT PIPE CULVERT HEADWALL INLET STRUCTURE PER DETAIL ON SHEET 2.	1	EA.

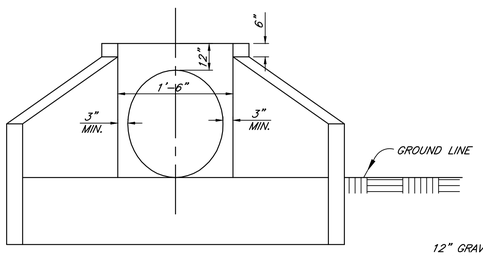


27 GUNNITE BROW DITCH
N.T.S.

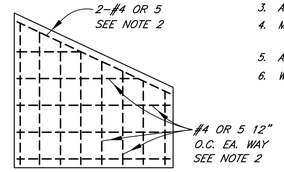


* SLOPE PER DIRECTION OF FLOW

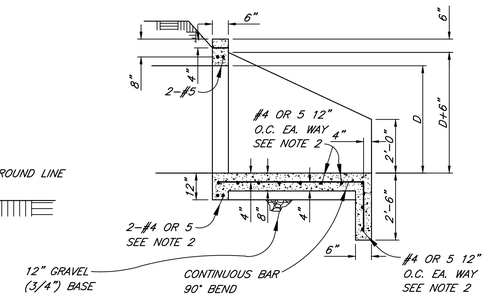
PLAN



ELEVATION



REINFORCING DETAIL

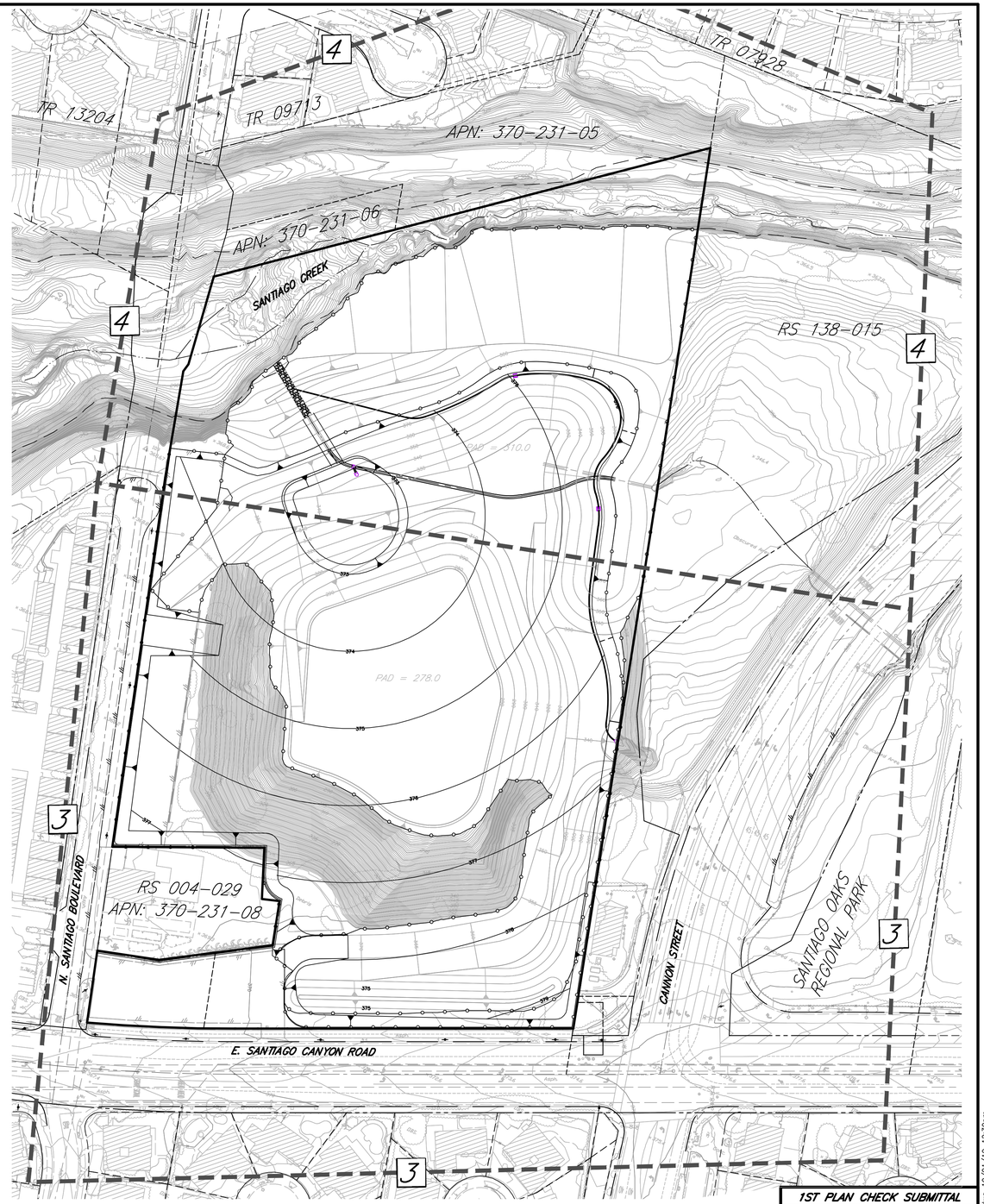


SECTION A-A

30 INLET HEADWALL DETAIL
NOT TO SCALE

NOTES:

1. HEADWALL SHALL BE CONSTRUCTED OF CLASS A CONCRETE.
2. REINFORCING STEEL SHALL BE NO. 4 BARS FOR "W" UP TO 60". ABOVE "W"=60" NO. 5 BARS SHALL BE USED. 2" MIN. CLEARANCE, 30 DIA. LAP, ALL STEEL.
3. ADJACENT SLOPES SHALL BE 1-1/2 TO 1 OR FLATTER.
4. MULTIPLE PIPES TO BE SET WITH LONGITUDINAL CENTERS 1-2/3 DIA. APART.
5. ALL EXPOSED CORNERS TO BE ROUNDED 3/4" RADIUS.
6. W SHALL BE INCREASED WHEN MULTIPLE PIPES OR PIPES ON SKEW ARE USED.



INDEX MAP
SCALE: 1"=80'

80' 0 80' 160'
SCALE: 1"=80'

INDEX MAP LEGEND:

- # — INDICATES PLAN SHEET NUMBER FOR PHASE 2 ULTIMATE CONDITION
- INDICATES PLAN SHEET LIMIT

1ST PLAN CHECK SUBMITTAL

Underground Service Alert
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LEGEND:

- EXISTING RIGHT OF WAY
- EXISTING PARCEL LINES
- CENTERLINE
- EXISTING FENCE
- EXISTING CURB AND GUTTER
- EXISTING EDGE OF PAVEMENT
- EXISTING CONCRETE EDGE
- 8"S EXISTING SEWER
- 6"W EXISTING WATER
- EXISTING STORM DRAIN
- 4"G EXISTING GAS LINE
- E EXISTING ELECTRICAL CONDUIT
- T EXISTING TELEPHONE CONDUIT
- PROP. RIGHT OF WAY
- PROPERTY LINE
- EXISTING WALL
- PROPOSED CURB AND GUTTER
- EXISTING STREET LIGHT
- EXISTING POWER POLE/ TELEPHONE POLE
- TOP/TOE SLOPE
- DAYLIGHT/GRADING LIMITS
- CUT/FILL LINE
- EXISTING FLOODPLANE BOUNDARY
- PROPOSED FLOODPLANE BOUNDARY
- EXISTING CREEK FLOWLINE

ABBREVIATIONS:

AB	AGGREGATE BASE	EL	ELEVATION	PB	PULL BOX
AC	ASPHALTIC CONCRETE	EX	EXISTING	P.I.P.	PROTECT IN PLACE
AV	AIR VAC	EOP	EDGE OF PAVEMENT	PVI	POINT OF VERTICAL INTERSECTION
BC	BEGIN CURVE	FG	FINISHED GRADE	PVMT	PAVEMENT
BO	BLOW OFF	F/H	FIRE HYDRANT	R/W	RIGHT OF WAY
BCR	BEGIN CURB RETURN	FL	FLOWLINE	S	SANITARY SEWER (SIZE AS NOTED)
BVC	BEGIN VERTICAL CURVE	FS	FINISHED SURFACE	SMH	SEWER MANHOLE
CB	CATCH BASIN	G	GAS LINE (SIZE AS NOTED)	STA	STATION
℄	CENTERLINE	GB	GRADE BREAK	SW	SIDEWALK
C&G	CURB AND GUTTER	HP	HIGH POINT	TB	TRAFFIC BOX/ TRAFFIC FIBER BOX
CONC.	CONCRETE	INV	INVERT	TC	TOP OF CURB
DIA.	DIAMETER	L	LENGTH OR LENGTH OF ARC	W	WATER LINE (SIZE AS NOTED)
DWY	DRIVEWAY	LP	LOW POINT	WM	WATER METER
EC	END CURVE	MH	MANHOLE	WV	WATER VALVE
ECR	END CURB RETURN	R	PROPERTY LINE	( )	EXISTING ITEM
EVC	END VERTICAL CURVE	PP	POWER POLE		

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REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARNETT No.78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS			
No.	Date	Description	Approved

BENCH MARK
OC 31-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale
NOT TO SCALE

CITY OF ORANGE
ROUGH GRADING PLANS
QUANTITIES, INDEX, AND LEGEND

Drawing No.
Sh 2 of 7

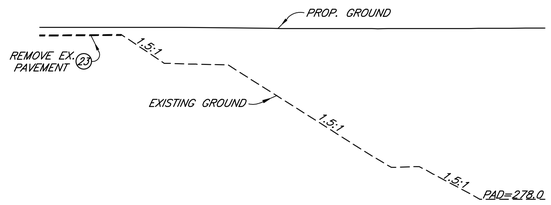
R:\1545\1545\FINAL\CONST\RGRD\PHASE 2\1545RGR02.dwg 10/01/19 12:39pm

SEE SHEET NO. 4

PHASE 2 CONSTRUCTION NOTES

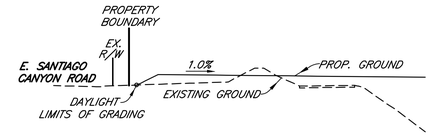
(22) REMOVE EXISTING BLOCK WALL

(23) REMOVE EXISTING PAVEMENT



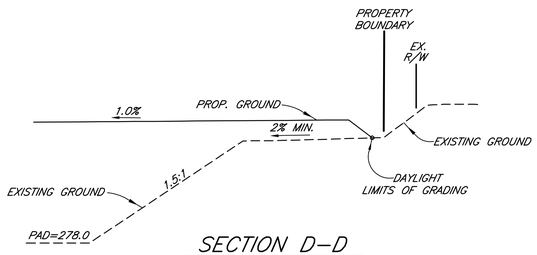
SECTION B–B

SCALE 1"=40'



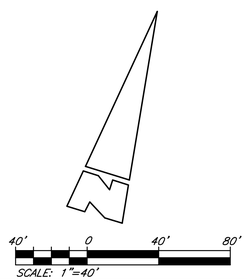
SECTION C–C

SCALE 1"=40'



SECTION D–D

SCALE 1"=40'



1ST PLAN CHECK SUBMITTAL

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REGISTERED PROFESSIONAL ENGINEER BRANDON M. DARRIETT No. 78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS

No.	Date	Description	Approved

BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=40'

CITY OF ORANGE
ROUGH GRADING PLANS
PHASE 2 ULTIMATE CONDITION

Drawing No.

Sh 3 of 7

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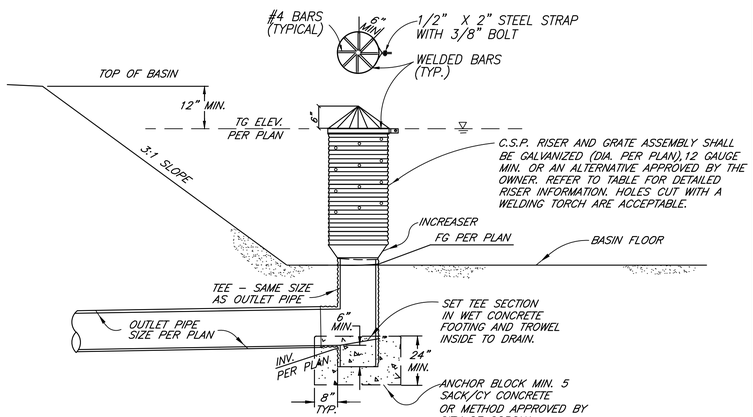


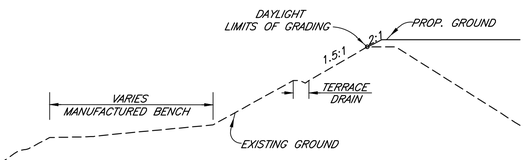
DESILTING RISER DETAIL

(20) NOT TO SCALE

SEDIM. BASIN NO.	INLET RISER DIA. (FT)	DIA. OF ORIFICE	# OF ORIFICES REQUIRED	TOTAL ORIFICE AREA REQ. (FT^2)	# OF ORIFICES @ ROW 1 LOCATED 12" ABOVE FG	# OF ORIFICES @ ROW 2 LOCATED 24" ABOVE FG	# OF ORIFICES @ ROW 3 LOCATED 36" ABOVE FG
1	5	1.5"	11	0.13	11 @ 18" O.C.	NONE	NONE

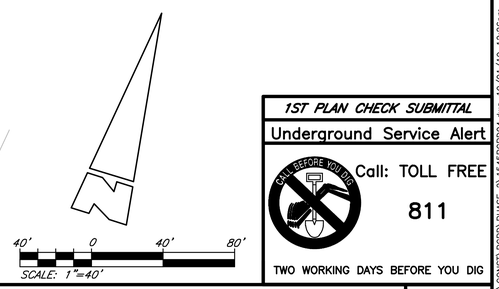
PHASE 2 CONSTRUCTION NOTES

(23) REMOVE EXISTING PAVEMENT



SECTION A-A

SCALE 1"=40'



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REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARRETT No. 78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

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BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=40'

CITY OF ORANGE
ROUGH GRADING PLANS
PHASE 2 ULTIMATE CONDITION

Drawing No.

Sh 4 of 7

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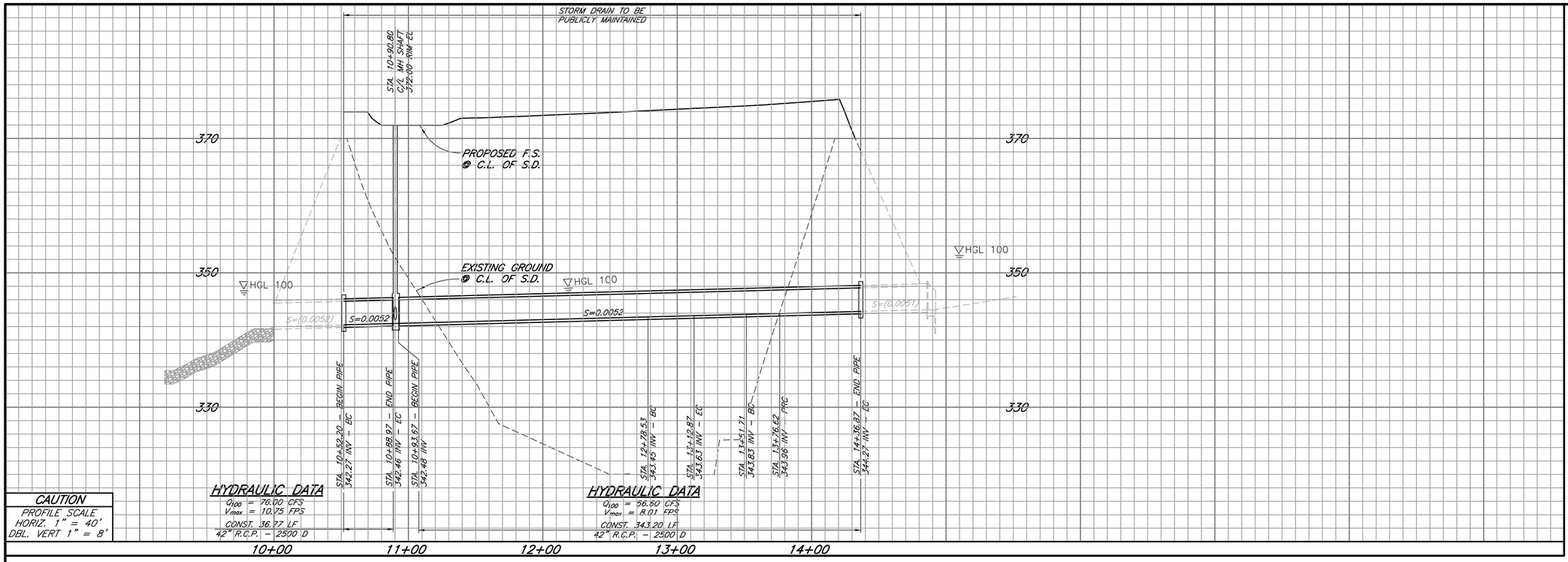


CAUTION
PROFILE SCALE
HORIZ. 1" = 40'
DBL. VERT 1" = 8'

STORM DRAIN CONSTRUCTION NOTES:

(20) CONSTRUCT DESILTING BASIN & RISER PER CITY OF ORANGE STD. 337 & DETAIL ON SHEET 4.

(21) CONSTRUCT 42" R.C.P. (SEE PROFILE FOR D-LOAD AND CLASS). PIPE BEDDING PER CITY OF ORANGE STD. PLAN 327.

(24) CONNECT TO EXISTING STORM DRAIN WITH A CONCRETE COLLAR PER CITY OF ORANGE STD. 320

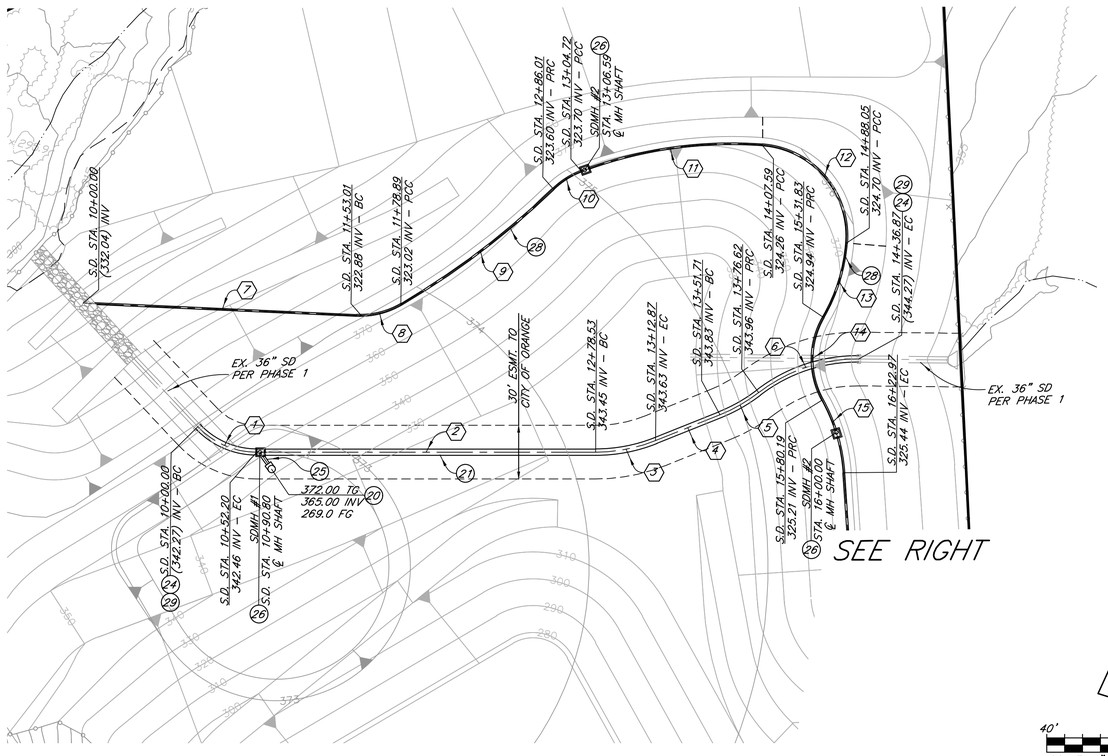
(25) CONSTRUCT 24" R.C.P. (2000-D) PIPE BEDDING PER CITY OF ORANGE STD. PLAN 327.

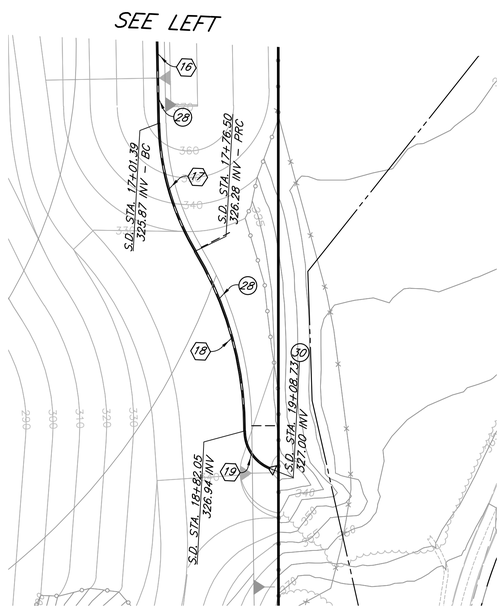
(26) CONSTRUCT JUNCTION STRUCTURE TYPE 1 PER CITY OF ORANGE STD. 313

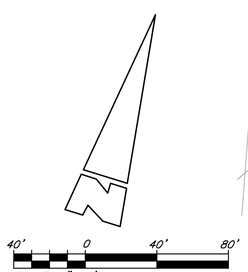
(28) **CONSTRUCT 12" H.D.P.E. DR17. TRENCHING AND BEDDING PER DETAIL HEREON.**

(29) REMOVE EXISTING CONCRETE COLLAR OR BULKHEAD

(30) CONSTRUCT PIPE CULVERT HEADWALL INLET STRUCTURE PER DETAIL ON SHEET 2.







40' 0 40' 80'
SCALE: 1"=40'

LINE/CURVE TABLE				
NO.	BEARING/DELTA	RADIUS	LENGTH	TANGENT
1	46°48'50"	45.00'	36.77'	19.48'
2	N75°35'06"E	–	189.56'	–
3	21°51'56"	90.00'	34.35'	17.38'
4	N53°43'10"E	–	38.83'	–
5	15°51'30"	90.00'	24.91'	12.54'
6	38°21'30"	90.00'	60.25'	31.30'
7	N78°10'11"W	–	153.02'	–
8	32°56'24"	45.00'	25.87'	13.30'
9	13°39'14"	449.54'	107.13'	53.82'
10	23°18'10"	46.00'	18.71'	9.49'
11	24°49'57"	237.35'	102.87'	52.26'
12	90°23'31"	51.00'	80.46'	51.35'
13	25°35'39"	98.00'	43.78'	22.26'
14	58°57'23"	47.00'	48.36'	26.57'
15	25°00'41"	98.00'	42.78'	21.74'
16	N18°14'51"	–	78.42'	–
17	29°40'42"	145.00'	75.11'	38.42'
18	30°51'24"	196.00'	105.56'	54.09'
19	67°55'52"	22.50'	26.68'	15.16'

1ST PLAN CHECK SUBMITTAL

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REGISTERED PROFESSIONAL ENGINEER
BRANDON M. BARNETT
No. 78472
CIVIL
STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS			
No.	Date	Description	Approved

BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=40'

CITY OF ORANGE
ROUGH GRADING PLANS
STORM DRAIN IMPROVEMENTS

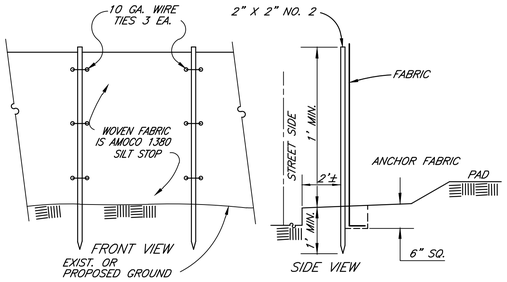
Drawing No.
Sh 5 of 7

R:\15\1545\FINAL\CONST\RGRD\PHASE 2\1545RGR005.dwg 10/01/19 12:25pm

EROSION CONTROL, SEDIMENT CONTROL, AND WATER QUALITY NOTES

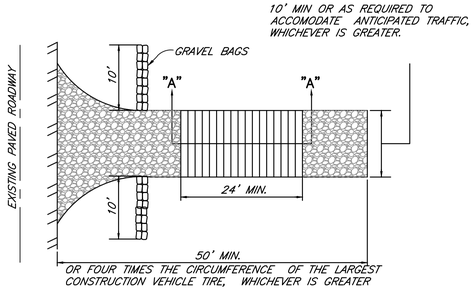
1. IN CASE OF EMERGENCY, CALL JEFF BARAN AT: (310) 722-1244 DURING BUSINESS HOURS, AND (310) 784-2907 ALL OTHER TIMES.
2. A STAND-BY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
3. THE CIVIL ENGINEER OR OTHER RESPONSIBLE INDIVIDUAL SHALL SUBMIT PLANS FOR REVIEW BY THE CITY ENGINEER DETAILING THE PLACING OF EROSION CONTROL FACILITIES TO PROTECT AREAS SUBJECT TO STORM DAMAGE. ALL DEVICES MUST BE IN PLACE AND WORKING AT ALL TIMES. FAILURE TO PROVIDE THESE DEVICES WILL BE CAUSE TO REVOKE PERMITS OR APPROVALS BY THE CITY ENGINEER AND/OR BUILDING OFFICIAL.
4. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT THE APPROVAL OF THE CITY INSPECTOR.
5. EXCEPT AS OTHERWISE APPROVED BY THE CITY INSPECTOR, REMOVABLE PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY OR ON WEEKENDS WHEN THE 5 DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
6. THE PLACEMENT OF ADDITIONAL DEVICES TO REDUCE EROSION DAMAGE WITHIN THE SITE IS LEFT TO THE DISCRETION OF THE FIELD ENGINEER.
7. DESILTING BASINS MAY NOT BE REMOVED OR MADE INOPERABLE WITHOUT PRIOR APPROVAL OF THE CITY INSPECTOR.
8. EROSION CONTROL DEVICES SHALL BE MODIFIED AS NEEDED AS THE PROJECT PROGRESSES, AND PLANS OF THESE CHANGES SUBMITTED FOR APPROVAL AS REQUIRED.
9. INSURE THAT ALL EXISTING DRAINAGE COURSES AND CULVERTS ARE MAINTAINED IN WORKING CONDITION AND FREE OF SILT & DEBRIS.
10. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
11. ALL LOOSE SOIL AND DEBRIS WHICH MAY CREATE A POTENTIAL HAZARD TO OFFSITE PROPERTY SHALL BE REMOVED FROM THE SITE AS DIRECTED BY THE INSPECTOR.
12. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING BASINS AND BASINS PUMPED DRY.
13. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
14. APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.
15. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REMOVE SEDIMENT AND OTHER POLLUTANTS.
16. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
17. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
18. FILL SLOPES AT THE SITE PERIMETER MUST DRAIN AWAY FROM THE TOP OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY.
19. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICE EXCEEDS TWO (2) FEET.
20. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ARE ALLOWED ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.

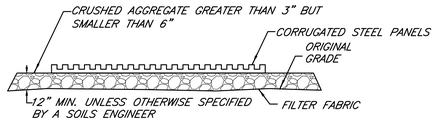
    POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIME, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS, ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING; AND SUPERCHLORINATED POTABLE WATER LINE FLUSHINGS.
21. DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
22. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
23. TAKE NECESSARY PRECAUTIONS TO INSURE THAT ADJACENT PROPERTY NOT SUFFER DAMAGE DUE TO DEBRIS, MUD, OR INUNDATION CAUSED BY GRADING ACTIVITIES WITHIN PERMITTED AREA.
24. PLACE EROSION PROTECTION AROUND ALL OUTLETS OF DOWNDRAINS THAT ARE NOT FULLY CONNECTED TO THE ULTIMATE DRAINAGE DEVICE.
25. PLACE EROSION PROTECTION AROUND ALL ULTIMATE INLETS WHILE THE POSSIBILITY OF SILTATION EXISTS PRIOR TO ULTIMATE SLOPE PLANTING BECOMING EFFECTIVE.
26. RESTORE ALL VEGETATION AND PLANTING ON THE EXISTING SLOPE TO ORIGINAL CONDITION.



1 SILT FENCE

N.T.S.



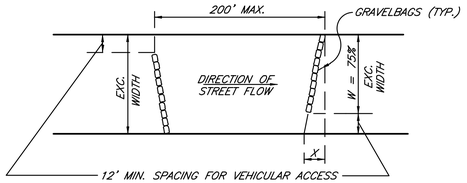


SECTION "A" – "A"

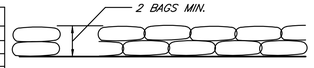
N.T.S.

2 STABILIZED CONSTRUCTION ACCESS DETAIL

N.T.S.



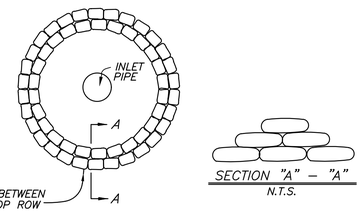
W	X
20'-30'	5
31'-40'	7
41'-50'	9
51'-60'	10.5
61'-70'	12



STREET GRADE	LENGTH
LESS THAN 4%	200'
4% TO 9%	100'
> 9%	50'

4 GRAVELBAG VELOCITY REDUCER IN STREET

N.T.S.

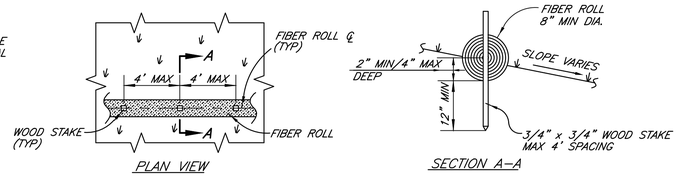


SECTION "A" – "A"

N.T.S.

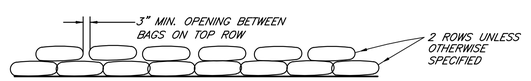
5 INLET PROTECTION

N.T.S.



6 FIBER ROLLS

N.T.S.



7 GRAVELBAG BARRIERS

N.T.S.

LEGEND

- PROPOSED CURB & GUTTER
- EXISTING CURB & GUTTER
- PROPOSED RIGHT OF WAY
- EXISTING EDGE OF PAVEMENT
- EXISTING PROPERTY LINE
- EXISTING RIGHT OF WAY
- EXISTING CENTERLINE
- MSA — MATERIAL STORAGE AND LOADING/UNLOADING AREA
- EMA — EQUIPMENT MAINTENANCE, WASH AND FUELING AREA
- CWA — CONCRETE WASHOUT AREA
- WSA — WASTE STORAGE AREA
- 7 — ONSITE SANITATION AREA (TOILETS)
- GRAVELBAGS
- SILT FENCE
- PROPOSED SLOPE
- (P) — PROPOSED SHEET FLOW
- EXIST. — EXISTING SHEET FLOW
- HYDROSEED/MULCH

EROSION CONTROL CONSTRUCTION NOTES:

1. INSTALL SILT FENCE PER DETAIL HEREON.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE PER DETAIL HEREON.
3. HYDROSEED/MULCH SLOPES.
4. INSTALL GRAVEL BAG VELOCITY REDUCER PER DETAIL HEREON.
5. INSTALL INLET PROTECTION PER DETAIL HEREON.
6. INSTALL FIBER ROLL PER DETAIL HEREON.
7. INSTALL GRAVELBAG BARRIER PER DETAIL 7 HEREON.

REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARRETT No. 78472 Exp. 9/30/17 CIVIL STATE OF CALIFORNIA

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REGISTERED PROFESSIONAL ENGINEER BRANDON M. BARRETT No. 78472 CIVIL STATE OF CALIFORNIA

Designed by	Drawn by	Checked by
MLL	MLL	BMB

PLANS PREPARED UNDER SUPERVISION OF

Date _____ P.E. No. 78472

SP 1977, SP 2939, 3-430
MM 434 35-37, RSB 267-11
RSB 25-35, RSB 138 15-17

Reference Plans for these Improvements

REVISIONS

No.	Date	Description	Approved

BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=40'

CITY OF ORANGE
ROUGH GRADING PLANS
EROSION CONTROL – TITLE SHEET

Drawing No.

Sh 6 of 7

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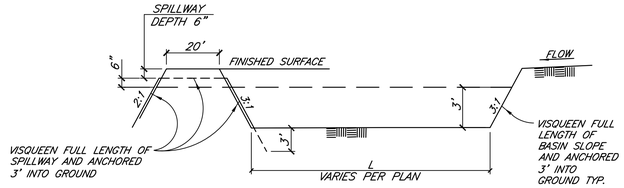
EROSION CONTROL CONSTRUCTION NOTES:

1. INSTALL SILT FENCE PER DETAIL ON SHEET 6.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE PER DETAIL ON SHEET 6.
3. HYDROSEED/MULCH SLOPES.
5. INSTALL INLET PROTECTION PER DETAIL ON SHEET 6.
6. INSTALL FIBER ROLL PER DETAIL ON SHEET 6.
7. INSTALL GRAVEL BAGS ALONG SPILLWAY.



CROSS SECTION
TYPICAL SEDIMENT BASIN

REFER TO PLATE SE-2 OF ATTACHMENT "G" OF THE SWPPP TEXT.
N.T.S.

SEDIMENT BASINS TO BE CONSTRUCTED AT THE BEGINNING OF GRADING WORK SO THAT STORM RUN-OFF IS ADEQUATELY DESILTED BEFORE LEAVING THE SITE.

MINIMUM SEDIMENT BASIN CAPACITY IS 2700 CU. FT. PER GROSS ACRE OF TRIBUTARY AREA.

APN: 370-231-06
APN: 370-042-07
APN: 370-231-08
EXIST.
DESILTING BASIN
SPILLWAY
DESILTING BASIN
EX. EOP
EX. EOP
MSA
EMA
CWA
WSA
N. SANTIAGO BOULEVARD
CANYON STREET
E. SANTIAGO CANYON ROAD

1ST PLAN CHECK SUBMITTAL

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REGISTERED PROFESSIONAL ENGINEER
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REVISIONS

No.	Date	Description	Approved

BENCH MARK
OC 3L-32-71
ELEV.: 385.466 MSL
SEE SHEET NO. 1 FOR DESC.

Scale 1"=60'

CITY OF ORANGE
ROUGH GRADING PLANS
EROSION CONTROL - PHASE 2 ULTIMATE

Drawing No.
Sh 7 of 7

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