

**APPENDIX I**  
**WATER QUALITY MANAGEMENT PLAN**



# **City of Santa Ana**

## **Water Quality Management Plan (WQMP)**

**Project Name:**

**McDonald's Santa Ana, California  
2109 E Santa Clara Avenue, Santa Ana, CA 92705  
APN: 396-261-26, 396-261-33, 396-261-38**

**Prepared for:**

**Michael Gregg, Director of Construction and Entitlements**

**Stream Realty**

**3161 Michelson Drive, Suite 100**

**Irvine, CA 92612**

**(805) 215-6453**

**Prepared by:**

**Kimley-Horn and Associates, Inc.**

**Hannah Luevano, P.E. – RCE No. 90371**

**1100 Town and Country Road, Suite 700**

**Orange, CA 92868**

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**CEQA Analysis Submittal: August, 2023**

<b>Project Owner's Certification</b>			
Planning Application No. (If applicable)	TBD	Grading Permit No.	TBD
Tract/Parcel Map and Lot(s) No.	Parcel 1, 2, & 3	Building Permit No.	TBD
Address of Project Site and APN (If no address, specify Tract/Parcel Map and Lot Numbers)			2109 E Santa Clara Avenue, Santa Ana, CA 92705 APN: 396-261-26, 396-261-33, 396-261-38



This Water Quality Management Plan (WQMP) has been prepared for Stream Realty by Kimley-Horn and Associates, Inc. The WQMP is intended to comply with the requirements of the County of Orange NPDES Stormwater Program requiring the preparation of the plan.

The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan, including the ongoing operation and maintenance of all best management practices (BMPs), and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the current Orange County Drainage Area Management Plan (DAMP) and the intent of the non-point source NPDES Permit for Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the incorporated Cities of Orange County within the Santa Ana Region. Once the undersigned transfers its interest in the property, its successors-in-interest shall bear the aforementioned responsibility to implement and amend the WQMP. An appropriate number of approved and signed copies of this document shall be available on the subject site in perpetuity.

Representation on the Authority of Parties/Signatories. Each person signing this Agreement represents and warrants that he or she is duly authorized and has legal capacity to execute and deliver this Agreement. Each party represents and warrants to the other that the execution and delivery of the Agreement and the performance of such party's obligations hereunder have been duly authorized and that the Agreement is a valid and legal agreement binding on such party and enforceable in accordance with its terms. This agreement is binding on any successors in interest, designees or transferees. Attach proof of authority to execute this agreement.

**Water Quality Management Plan (WQMP)**  
**McDonalds Santa Ana**

<b>Owner:</b>			
Title	Michael Gregg - Director of Construction and Entitlements		
Company	Stream Realty		
Address	3161 Michelson Drive, Suite 100, Irvine, CA 92612		
Email	<a href="mailto:michael.gregg@streamrealty.com">michael.gregg@streamrealty.com</a>		
Telephone #	(805) 215-6453		
I understand my responsibility to implement the provisions of this WQMP including the ongoing operation and maintenance of the best management practices (BMPs) described herein.			
Owner Signature		Date	

<b>Preparer (Engineer): Hannah Luevano</b>			
Title	Hannah Luevano, P.E. - Civil Engineer	PE Registration #	90371
Company	Kimley-Horn and Associates, Inc.		
Address	1100 Town and Country Road, Suite 700, Orange, CA 92868		
Email	hannah.luevano@kimley-horn.com		
Telephone #	(714-939-1030)		
I hereby certify that this Water Quality Management Plan is in compliance with, and meets the requirements set forth in, Order No. R8-2009-0030/NPDES No. CAS618030, of the Santa Ana Regional Water Quality Control Board.			
Preparer Signature		Date	6/29/2023
Place Stamp Here			

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## **Section I Permit(s) and Water Quality Conditions of Approval or Issuance**

Provide discretionary or grading/building permit information and water quality conditions of approval, or permit issuance, applied to the project. If conditions are unknown, please request applicable conditions from staff. Refer to Section 2.1 in the Technical Guidance Document (TGD) available on the OC Planning website (ocplanning.net).

<b>Project Information</b>	
Permit/ Application No. (If applicable)	TBD
Grading or Building Permit No. (If applicable)	TBD
Address of Project Site (or Tract Map and Lot Number if no address) and APN	2109 E Santa Clara Avenue, Santa Ana, CA 92705 APN: 396-261-26, 396-261-33, 396-261-38
<b>Water Quality Conditions of Approval or Issuance</b>	
Water Quality Conditions of Approval or Issuance applied to this project. (Please list verbatim.)	Conditions of approval shall be provided upon approval.
<b>Conceptual WQMP</b>	
Was a Conceptual Water Quality Management Plan previously approved for this project?	No
<b>Watershed-Based Plan Conditions</b>	
Provide applicable conditions from watershed - based plans including WIHMPs and TMDLS.	The project lies within the Newport Bay Watershed (Attachment A). Per the hydromodification susceptibility map, the project area is not exempt from hydromodification and is within an area with potential for erosion, habitat, & physical structure susceptibility. The project area has no existing storm drain system and all sheet flows to the curb and gutter off E Santa Clara Ave. The existing runoff flows east towards the public inlet in the intersection of E Santa Clara Ave and Tustin Ave. to discharges to Peters Canyon Wash, and ultimately to Newport Bay. Peters Canyon Wash has DDT, Indicator

	<p>Bacteria, Toxaphene and pH listed on the 303(d) List. The Newport Bay (Ecological Reserve), which is downstream of Peter's Canyon Wash, has chlordane, copper, DDT, indicator bacteria, metals, nutrients, PCBs, pesticides, sediment toxicity, and sedimentation listed and pollutants on the 303(d) list.</p> <p>From Table 2.4 "Summary of the Status of TMDLs for Waterbodies in Region 8 and 9 of the TGD the following pollutant affect Upper Newport Bay: Bacteria indicators/pathogens (implementation phase; Metals (technical TMDLs); Nutrients (implementation phase); Pesticides (technical TMDL's); and Turbidity / Siltation (implementation phase). The State Water Resources Control Board trash amendments requires full capture of trash/</p>
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## Section II Project Description

### II.1 Project Description

Provide a detailed project description including:

- Project areas;
- Land uses;
- Land cover;
- Design elements;
- A general description not broken down by drainage management areas (DMAs).

Include attributes relevant to determining applicable source controls. Refer to Section 2.2 in the Technical Guidance Document (TGD) for information that must be included in the project description.

Description of Proposed Project				
Development Category (From Model WQMP, Table 7.11-2; or -3):	Project falls under priority category 3 (Restaurants where the land area of development is 5,000 square feet or more including parking area. This category is defined as facilities that sell prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption.)  The project will disturb approximately 0.82 acres. As a result Section 7.II-20 of Model WQMP only applies to the replacement area as described below.			
Project Area (ft <sup>2</sup> ): 35530	Number of Dwelling Units: N/A		SIC Code: 5812	
Project Area	Pervious		Impervious	
	Area (acres or sq ft)	Percentage	Area (acres or sq ft)	Percentage
Pre-Project Conditions	18,928 sq. ft.	53.3%	16,602	46.7%
Post-Project Conditions	8,604 sq. ft.	24.2%	26,926	75.8%



Drainage Patterns/Connections	<p>The existing runoff flows from the northwest and northeast corner of the property and sheet flows south. With no existing stormdrain system, the stormwater runoff sheet flows south from the existing driveway approaches onto the existing curb and gutter on E Santa Clara Ave. From E Santa Clara Ave. the stormwater runoff flows east to the curb inlet on the intersection of E Santa Clara Ave and Tustin Ave and through the public storm drain system to Peter's Canyon Wash and ultimately discharges to the Newport Bay.</p> <p>The existing drive aisle east of the proposed development will remain the same and continue to have the drainage area flowing south onto E Santa Clara Ave. The existing watersheds will be preserved.</p>
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Narrative Project  
Description:

The proposed project is in APN no. 396-261-26, 396-261-33, and 396-261-38 (2109 E Santa Clara Avenue, Santa Ana, CA 92705). The project is north of E Santa Clara Avenue and is surrounded by commercial developments from the north, east and west side of the property. The site disturbs approximately 0.82 acres and is comprised of two existing residential buildings and two associated garages surrounded by an existing wall to separate the parcels and drainage area. The project will demolish the existing residential buildings and associated driveway approaches to propose a new McDonald's restaurant, trash enclosure, drive through and associated parking lot.

The proposed building will be a rectangle-oriented North to South with entrances on the North, East, and West faces of the building. The drive-thru approach will be on the South side of the building and circulation is counter-clockwise. The drive-thru exit will be to the South side of the building. The building will have a roof drain system that discharges to the surface drive thru area and to proposed catch basins.

The proposed runoff will be captured via curb and gutters and valley gutters and conveyed northeast to the south west and towards one of three catch basins strategically placed throughout the site. The site has an artificial ridge line east of the property and separates the adjacent shared access aisle and the proposed restaurant area. The access aisle will sheet flow from the northeast corner of the property to the southeast driveway approach towards Santa Clara Ave. The remaining development area will sheet flow from the northeast corner of the property towards the southwest area of the property into the proposed catch basins. The catch basins will pipe into a proposed modular wetland system (MWS) to treat and capture the runoff for the 24-hour 85th percentile storm. After treatment, the stormwater runoff will discharge to a proposed underground retention system and eventually be pumped and piped out to the existing curb and gutter off E. Santa Clara Avenue. Per the ALTA survey and utility locate, there is no existing public stormwater lines adjacent to the property. The stormwater runoff will flow east off E. Santa Clara Avenue and to the existing curb inlet at the intersection of Santa Clara Ave. and Tustin Ave. to ultimately discharge onto the public storm drain system off Tustin Ave.

Land use at the proposed site will include indoor food preparation, cooking, indoor and outdoor eating areas, a drive-thru, and improvements to the surface parking and landscaping design. A covered trash enclosure is proposed at the northwest corner of the site. Expected wastes will be food waste, grease from cooking, trash and debris.

## II.2 Potential Stormwater Pollutants

Determine and list expected stormwater pollutants based on land uses and site activities. *Refer to Section 2.2.2 and Table 2.1 in the Technical Guidance Document (TGD) for guidance.*

Pollutants of Concern			
Pollutant	Check One for each: E=Expected to be of concern N=Not Expected to be of concern		Additional Information and Comments
Suspended-Solid/ Sediment	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Sediment pollutants can be generated in this category of project, it is listed in the 303(d) for the receiving waters.
Nutrients	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Newport Bay has a TMDL for Nutrients.
Heavy Metals	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Newport Bay has a TMDL for Heavy Metals (copper, metals).
Pathogens (Bacteria/Virus)	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Indicator bacteria is expected to be generated and is listed on the 303(d) List.
Pesticides	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Pesticides are considered in this category of project; it is listed in the 303(d) for the receiving waters.
Oil and Grease	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Expected with proposed restaurant.
Toxic Organic Compounds	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Expected with proposed landscaping
Trash and Debris	E <input checked="" type="checkbox"/>	N <input type="checkbox"/>	Expected with proposed trash enclosure.

### **II.3 Hydrologic Conditions of Concern**

Determine if streams located downstream from the project area are potentially susceptible to hydromodification impacts. *Refer to Section 2.2.3.1 in the Technical Guidance Document (TGD) for North Orange County or Section 2.2.3.2 for South Orange County.*

No - Show map

Yes - Describe applicable hydrologic conditions of concern below. *Refer to Section 2.2.3 in the Technical Guidance Document (TGD).*

As shown in Appendix A, Watershed Susceptibility, the site area falls within the potential areas of erosion, habitat and physical structure susceptibility. Given the poor infiltration rates in the site and the decrease in pervious areas from existing conditions, the site will have a proposed BMP. The proposed BMP will allow the post-development runoff volume for the 2-yr, 24 hr storm event be less or equal to the pre-development runoff volume. Refer to Summary Table below and attached calculations in Attachment G for more information. Therefore, Hydrologic Conditions of Concern will be accounted for in the underground system so post-development site conditions match existing pre-development site conditions.

## **II.4 Post Development Drainage Characteristics**

Describe post development drainage characteristics. *Refer to Section 2.2.4 in the Technical Guidance Document (TGD).*

The proposed runoff will be captured via curb and gutters and valley gutters and conveyed northeast to the south west and towards one of three catch basins strategically placed throughout the site. The site has an artificial ridge line east of the property and separates the adjacent shared access aisle and the proposed restaurant area. The access aisle will sheet flow from the northeast corner of the property to the southeast driveway approach towards Santa Clara Ave. The remaining development area will sheet flow from the northeast corner of the property towards the southwest area of the property into the proposed catch basins. The proposed catch basins will pipe into a proposed modular wetland system (MWS) to treat and capture the runoff for the 24-hour 85th percentile storm. After treatment, the stormwater runoff will discharge to a proposed underground retention system and eventually be pumped and piped out to the existing curb and gutter off E. Santa Clara Avenue. Per the Alta survey and utility locate, there is no existing public stormwater lines adjacent to the property. The stormwater runoff will flow east off E. Santa Clara Avenue and to the existing curb inlet at the intersection of Santa Clara Ave. and Tustin Ave. to ultimately discharge onto the public storm drain system off Tustin Ave.

## **II.5 Property Ownership/Management**

Describe property ownership/management. *Refer to Section 2.2.5 in the Technical Guidance Document (TGD).*

The Stream Realty is the current owner of the site. The proposed development and BMPs will be maintained by McDonald's through a lease agreement with Stream Realty. The operation and maintenance costs of the BMPs will be incorporated with the operating budget for the restaurant.

## **Section III Site Description**

### **III.1 Physical Setting**

Fill out table with relevant information. *Refer to Section 2.3.1 in the Technical Guidance Document (TGD).*

Name of Planned Community/Planning Area (if applicable)	Commercial
Location/Address	2109 E Santa Clara Avenue,
	Santa Ana, CA 92705
General Plan Land Use Designation	Community Commercial - Restaurant
Zoning	A1- General Agricultural
Acreage of Project Site	0.82
Predominant Soil Type	Hydraulic Group B

### **III.2 Site Characteristics**

Fill out table with relevant information and include information regarding BMP sizing, suitability, and feasibility, as applicable. *Refer to Section 2.3.2 in the Technical Guidance Document (TGD).*

<b>Site Characteristics</b>	
Precipitation Zone	85th percentile depth is 0.77 inches
Topography	Site is relatively flat with slopes ranging from 0.5 - 2.8% and a surrounding wall to confine the area

<p>Drainage Patterns/Connections</p>	<p>In proposed conditions, stormwater runoff is captured through a series of curb and gutters/valley gutters from the northeast corner of the property to flow to the southern portion of the property. The sheet flow is conveyed from the site into one of three proposed catch basins. Two of the catch basins are piped to the southern central catch basin containing the MWS unit. The MWS unit is placed on site for the treatment of the design capture volume and is piped to a proposed underground system used for the attenuation of storm water runoff. The stormwater runoff is then pumped and released onto the curb and gutter off E. Santa Clara Ave. to be discharged into the existing curb inlet off E. Santa Clara Ave and Tustin Ave. From the public stormwater drain system, the runoff ultimately drains to Peter’s Canyon Wash and discharges to the Newport Bay.</p>
<p>Soil Type, Geology, and Infiltration Properties</p>	<p>A geotechnical report is attached, and two preliminary percolation testers were preformed October 9, 2021. The geotechnical report shows at a depth of 5 feet, soil has infiltration rates of 0.22 in/hr. and 0.18 in/hr. Infiltration was deemed infeasible.</p>
<p>Hydrogeologic (Groundwater) Conditions</p>	<p>Based on the geotechnical report, ground water was not found at a maximum depth of 21.5 feet below existing grade. The geotechnical report states, based on a nearby well data (Well337646N1178432W002), the highest groundwater level is reportedly situated at a depth of approximately 214 feet below the ground surface, which was recorded on March 12th, 2021.</p> <p>Historic high groundwater is 30 feet below the ground surface</p>
<p>Geotechnical Conditions (relevant to infiltration)</p>	<p>A geotechnical report is attached, and two preliminary percolation testers were preformed October 9, 2021. The geotechnical report shows at a depth of 5 feet, soil has infiltration rates of 0.22 in/hr. and 0.18 in/hr. Infiltration was deemed infeasible.</p>
<p>Off-Site Drainage</p>	<p>The site does not receive off-site storm flow.</p>
<p>Utility and Infrastructure Information</p>	<p>Water, gas, sewer, electrical, and communication lines are located on-site per the Alta survey. All existing utilities on-site will be removed to the property line as part of the demolition of the existing development and a new connection will be made to all utilities as part of these improvements.</p>

### **III.3 Watershed Description**

Fill out table with relevant information and include information regarding BMP sizing, suitability, and feasibility, as applicable. *Refer to Section 2.3.3 in the Technical Guidance Document (TGD).*

Receiving Waters	Peter's Canyon Wash, Upper Newport Bay (Ecological Reserve), Lower Newport Bay
303(d) Listed Impairments	Peter's Canyon Wash – DDT, Indicator Bacteria, Toxaphene and pH Upper Newport Bay – Chlorodane, Copper, DDT, Indicator Bacteria, Metals, Nutrients, PCBs, Pesticides, Sediment Toxicity, and Sedimentation/ Siltation Lower Newport Bay – Chlordane, Copper, DDT, Indicator Bacteria, Nutrients, PCBs, Toxicity
Applicable TMDLs	Bacteria, Metals, Nutrients, Pesticides, Toxicity, Sediments and Trash
Pollutants of Concern for the Project	Bacteria, Metals, Nutrients, Pesticides, Sediments, Toxicity, and Trash.
Environmentally Sensitive and Special Biological Significant Areas	Upper Newport Bay & Lower Newport Bay



## **Section IV Best Management Practices (BMPs)**

### **IV. 1 Project Performance Criteria**

Describe project performance criteria. Several steps must be followed in order to determine what performance criteria will apply to a project. These steps include:

- If the project has an approved WIHMP or equivalent, then any watershed specific criteria must be used and the project can evaluate participation in the approved regional or sub-regional opportunities. (Please ask your assigned planner or plan checker regarding whether your project is part of an approved WIHMP or equivalent.)
- Determine applicable hydromodification control performance criteria. *Refer to Section 7.II-2.4.2.2 of the Model WQMP.*
- Determine applicable LID performance criteria. *Refer to Section 7.II-2.4.3 of the Model WQMP.*
- Determine applicable treatment control BMP performance criteria. *Refer to Section 7.II-3.2.2 of the Model WQMP.*
- Calculate the LID design storm capture volume for the project. *Refer to Section 7.II-2.4.3 of the Model WQMP.*

(NOC Permit Area only) Is there an approved WIHMP or equivalent for the project area that includes more stringent LID feasibility criteria or if there are opportunities identified for implementing LID on regional or sub-regional basis?		YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
If yes, describe WIHMP feasibility criteria or regional/sub-regional LID opportunities.	N/A		

<b>Project Performance Criteria</b>	
<p>If HCOC exists, list applicable hydromodification control performance criteria (Section 7.II-2.4.2.2 in MWQMP)</p>	<p>The proposed underground system will attenuate the 2-year, 24-hour storm event per requirements to match existing conditions since there is HCOC because of the decreased pervious area in the site. The DVC mitigates the site runoff volume in addition to the decrease in runoff volume provided by the increased on-site pervious area.</p>
<p>List applicable LID performance criteria (Section 7.II-2.4.3 from MWQMP)</p>	<p>Priority projects must infiltrate, harvest and use, evapotranspire, or biotreat / biofilter, the 85th percentile, 24-hour storm event (Design Capture Volume)</p>
<p>List applicable treatment control BMP performance criteria (Section 7.II-3.2.2 from MWQMP)</p>	<p>If not feasible to meet the LID performance criteria through retention and / or biotreatment provided on-site or at a sub-regional / regional scale, then treatment control BMPs shall be provided on-site or off-site prior to discharge to waters of the US. Sizing of treatment control BMP(s) shall be based on either the unmet volume after claiming applicable water quality credits, if appropriate (see Section 7.II-3.1 Water Quality Credits) and as calculated in TGD Appendix VI. If treatment control BMPs can treat all the remaining unmet volume and have a medium to high effectiveness for reducing the primary POCs, the project is in compliance; a waiver application and participation in an alternative program is not required.</p>
<p>Calculate LID design storm capture volume for Project.</p>	<p>The minimum Design Capture Volume (DCV) for the project is 1,667 cubic feet.</p> <p>HSCs (<math>d_{HSC}</math>): 0 in</p> <p>Remaining Storm Depth (<math>d_{remainder}</math>): 0.78 in</p> <p>Project Tributary Area: 0.82 Acres</p> <p>Impervious (imp): 0.758 unitless</p> <p>Runoff Coefficient: 0.718 unitless (<math>(C = 0.75 \times imp) + 0.15</math>)</p> <p>Runoff Volume: (<math>DCV = C \times d_{remainder} \times A \times 43560 \times (1/12)</math>) = 1,638 cf</p> <p>The project is utilizing a proprietary MWS system to treat the DCV and is designed to draw down within the required 48 hours. The system selected will meet the required drawdown criteria. See Attachment H for LID BMP Calculations. In addition, to meet</p>

	<p>the full trash capture requirement, the project is utilizing full trash capture catch basin filter inserts at each of the drop inlets prior to the MWS system.</p>
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## **IV.2. Site Design and Drainage**

Describe site design and drainage including

- A narrative of site design practices utilized or rationale for not using practices;
- A narrative of how site is designed to allow BMPs to be incorporated to the MEP
- A table of DMA characteristics and list of LID BMPs proposed in each DMA.
- Reference to the WQMP "BMP Exhibit."
- Calculation of Design Capture Volume (DCV) for each drainage area.
- A listing of GIS coordinates for LID and Treatment Control BMPs.

*Refer to Section 2.4.2 in the Technical Guidance Document (TGD).*

The project disturbs approximately 0.82 acres and consists of four existing residential buildings surrounded by an existing wall to separate the parcels and drainage area. The project will demolish the existing residential buildings and associated driveway approaches to propose a new McDonald's restaurant, trash enclosure, drive through and associated parking lot.

The existing runoff flows from the northwest and northeast corner of the property and sheet flows south. With no existing stormwater system, the stormwater runoff sheet flows south from the existing driveway approaches onto the existing curb and gutter on E Santa Clara Ave. From E Santa Clara Ave. the stormwater runoff flows east to the curb inlet on the intersection of E Santa Clara Ave and Tustin Ave and through the public storm drain system to Peter's Canyon Wash and ultimately discharges to the Newport Bay.

The existing drive aisle east of the proposed development will remain the same and continue to have the drainage area flowing south onto E Santa Clara Ave. The existing watersheds will be preserved.

In the proposed condition, the site has been separated into three Drainage Areas (DA) as follows: DA 1 will consist of most of the development and will be treated by the modular wetland system (MWS) and underground retention system. DA 2 is solely landscape areas and will be considered self-treating and DA 3 will match existing conditions in the shared access aisle and will sheet flow off E. Santa Clara Ave. Refer to Attachment B for the WQMP Site Plan and Details.

In DA 1, the proposed runoff will be captured via curb and gutters and valley gutters and conveyed northeast to the southwest and towards one of three catch basins strategically placed throughout the site. The stormwater runoff will flow from the proposed catch basins and be piped into a proposed modular wetland system (MWS) to capture and treat the runoff for the 24-hour 85th percentile storm. After treatment, the stormwater runoff will discharge to a proposed underground retention system and eventually be pumped and piped out to the existing curb and gutter off E. Santa Clara Avenue. Per the Alta survey and utility locate, there is no existing public stormwater lines adjacent to the property. The stormwater runoff will flow east off E. Santa Clara Avenue and to the existing curb inlet at the intersection of Santa Clara Ave. and Tustin Ave. to ultimately discharge onto the public storm drain system off Tustin Ave.

During large storm events, the underground retention will serve to infiltrate and release onto the curb and gutter off E Santa Clara. See Attachment B Proposed Site Hydrology Exhibit.

### **IV.3 LID BMP Selection and Project Conformance Analysis**

Each sub-section below documents that the proposed design features conform to the applicable project performance criteria via check boxes, tables, calculations, narratives, and/or references to worksheets. Refer to Section 2.4.2.3 in the Technical Guidance Document (TGD) for selecting LID BMPs and Section 2.4.3 in the Technical Guidance Document (TGD) for conducting conformance analysis with project performance criteria.

#### **IV.3.1 Hydrologic Source Controls (HSCs)**

If required HSCs are included, fill out applicable check box forms. If the retention criteria are otherwise met with other LID BMPs, include a statement indicating HSCs not required.

<b>Name</b>	<b>Included?</b>
Localized on-lot infiltration	<input type="checkbox"/>
Impervious area dispersion (e.g. roof top disconnection)	<input type="checkbox"/>
Street trees (canopy interception)	<input type="checkbox"/>
Residential rain barrels (not actively managed)	<input type="checkbox"/>
Green roofs/Brown roofs	<input type="checkbox"/>
Blue roofs	<input type="checkbox"/>
Impervious area reduction (e.g. permeable pavers, site design)	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

**IV.3.2 Infiltration BMPs**

Identify infiltration BMPs to be used in project. If design volume cannot be met, state why.

Name	Included?
Bioretention without underdrains	<input type="checkbox"/>
Rain gardens	<input type="checkbox"/>
Porous landscaping	<input type="checkbox"/>
Infiltration planters	<input type="checkbox"/>
Retention swales	<input type="checkbox"/>
Infiltration trenches	<input type="checkbox"/>
Infiltration basins	<input type="checkbox"/>
Drywells	<input type="checkbox"/>
Subsurface infiltration galleries	<input type="checkbox"/>
French drains	<input type="checkbox"/>
Permeable asphalt	<input type="checkbox"/>
Permeable concrete	<input type="checkbox"/>
Permeable concrete pavers	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

Show calculations below to demonstrate if the LID Design Storm Capture Volume can be met with infiltration BMPs. If not, document how much can be met with infiltration and document why it is not feasible to meet the full volume with infiltration BMPs.

Infiltration is not an acceptable BMP for this site, see description in Section IV.2. See also Worksheet I: Summary of Groundwater-related Feasibility Criteria from Appendix VIII of the OCTGD located in Appendix E of this Report.

**IV.3.3 Evapotranspiration, Rainwater Harvesting BMPs**

If the full Design Storm Capture Volume cannot be met with infiltration BMPs, describe any evapotranspiration and/or rainwater harvesting BMPs included.

Name	Included?
All HSCs; <i>See Section IV.3.1</i>	<input type="checkbox"/>
Surface-based infiltration BMPs	<input type="checkbox"/>
Biotreatment BMPs	<input type="checkbox"/>
Above-ground cisterns and basins	<input type="checkbox"/>
Underground detention	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

Show calculations below to demonstrate if the LID Design Storm Capture Volume can be met with evapotranspiration and/or rainwater harvesting BMPs in combination with infiltration BMPs. If not, document below how much can be met with either infiltration BMPs, evapotranspiration, rainwater harvesting BMPs, or a combination, and document why it is not feasible to meet the full volume with these BMP categories.

It is not feasible to demonstrate LID Design can be met with evapotranspiration, rainwater harvesting or infiltration for the storm capture volume. The quantity of runoff generated during a 2 year 24 hour storm is not adequate to satisfy the needs of the building (toilet flushing) or landscape irrigation. See Appendix H for supporting calculations.

**IV.3.4 Biotreatment BMPs**

If the full Design Storm Capture Volume cannot be met with infiltration BMPs, and/or evapotranspiration and rainwater harvesting BMPs, describe biotreatment BMPs included. Include sections for selection, suitability, sizing, and infeasibility, as applicable.

Name	Included?
Bioretention with underdrains	<input type="checkbox"/>
Stormwater planter boxes with underdrains	<input type="checkbox"/>
Rain gardens with underdrains	<input type="checkbox"/>
Constructed wetlands	<input type="checkbox"/>
Vegetated swales	<input type="checkbox"/>
Vegetated filter strips	<input type="checkbox"/>
Proprietary vegetated biotreatment systems	<input checked="" type="checkbox"/>
Wet extended detention basin	<input type="checkbox"/>
Dry extended detention basins	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

Show calculations below to demonstrate if the LID Design Storm Capture Volume can be met with infiltration, evapotranspiration, rainwater harvesting and/or biotreatment BMPs. If not, document how much can be met with either infiltration BMPs, evapotranspiration, rainwater harvesting BMPs, or a combination, and document why it is not feasible to meet the full volume with these BMP categories.

The proprietary vegetated biotreatment system selected for this project is the Modular Wetland System (MWS) or an approved equivalent. This device is flow-based BMPs, rather than volumetric-based BMPs. Calculations were completed using the rational method and intensity data from NOAA (National Oceanic and Atmospheric Administration). See Section IV.1 Project Performance Criteria.



### **IV.3.5 Hydromodification Control BMPs**

Describe hydromodification control BMPs. *See Section 5 of the Technical Guidance Document (TGD).* Include sections for selection, suitability, sizing, and infeasibility, as applicable. Detail compliance with Prior Conditions of Approval (if applicable).

<b>Hydromodification Control BMPs</b>	
<b>BMP Name</b>	<b>BMP Description</b>
Underground System	Underground retention system used to attenuate 2-year, 24-hour storm event to match existing conditions

### **IV.3.6 Regional/Sub-Regional LID BMPs**

Describe regional/sub-regional LID BMPs in which the project will participate. *Refer to Section 7.II-2.4.3.2 of the Model WQMP.*

<b>Regional/Sub-Regional LID BMPs</b>
N/A

### **IV.3.7 Treatment Control BMPs**

Treatment control BMPs can only be considered if the project conformance analysis indicates that it is not feasible to retain the full design capture volume with LID BMPs. Describe treatment control BMPs including sections for selection, sizing, and infeasibility, as applicable.

<b>Treatment Control BMPs</b>	
<b>BMP Name</b>	<b>BMP Description</b>
N/A	N/A

**IV.3.8 Non-structural Source Control BMPs**

Fill out non-structural source control check box forms or provide a brief narrative explaining if non-structural source controls were not used.

<b>Non-Structural Source Control BMPs</b>				
<b>Identifier</b>	<b>Name</b>	<b>Check One</b>		<b>If not applicable, state brief reason</b>
		<b>Included</b>	<b>Not Applicable</b>	
N1	Education for Property Owners, Tenants and Occupants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N2	Activity Restrictions	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N3	Common Area Landscape Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N4	BMP Maintenance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N5	Title 22 CCR Compliance (How development will comply)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N6	Local Industrial Permit Compliance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No fuel dispensing or other area of concern to the public property.
N7	Spill Contingency Plan	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No hazardous material or chemical on-site.
N8	Underground Storage Tank Compliance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N9	Hazardous Materials Disclosure Compliance	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No hazardous material on-site.
N10	Uniform Fire Code Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N11	Common Area Litter Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N12	Employee Training	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N13	Housekeeping of Loading Docks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No loading docks.
N14	Common Area Catch Basin Inspection	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N15	Street Sweeping Private Streets and Parking Lots	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
N16	Retail Gasoline Outlets	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No gasoline outlets

### IV.3.9 Structural Source Control BMPs

Fill out structural source control check box forms or provide a brief narrative explaining if structural source controls were not used.

<b>Structural Source Control BMPs</b>				
<b>Identifier</b>	<b>Name</b>	<b>Check One</b>		<b>If not applicable, state brief reason</b>
		<b>Included</b>	<b>Not Applicable</b>	
S1	Provide storm drain system stenciling and signage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S2	Design and construct outdoor material storage areas to reduce pollution introduction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S3	Design and construct trash and waste storage areas to reduce pollution introduction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S5	Protect slopes and channels and provide energy dissipation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No slopes/channels to be disturbed as part of this project.
	Incorporate requirements applicable to individual priority project categories (from SDRWQCB NPDES Permit)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
S6	Dock areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No dock areas proposed
S7	Maintenance bays	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No maintenance bays proposed
S8	Vehicle wash areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No vehicle wash areas proposed
S9	Outdoor processing areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No outdoor processing areas proposed
S10	Equipment wash areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No equipment wash areas proposed
S11	Fueling areas	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No fueling areas proposed
S12	Hillside landscaping	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No hillside landscaping proposed
S13	Wash water control for food preparation areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Wash water for food preparation areas will be discharged to the on-site grease interceptor.
S14	Community car wash racks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	No community car wash racks proposed

**IV.4 Alternative Compliance Plan (If Applicable)**

N/A

**IV.4.1 Water Quality Credits**

Determine if water quality credits are applicable for the project. *Refer to Section 3.1 of the Model WQMP for description of credits and Appendix VI of the Technical Guidance Document (TGD) for calculation methods for applying water quality credits.*

<b>Description of Proposed Project</b>				
Project Types that Qualify for Water Quality Credits (Select all that apply):				
<input type="checkbox"/> Redevelopment projects that reduce the overall impervious footprint of the project site.	<input type="checkbox"/> Brownfield redevelopment, meaning redevelopment, expansion, or reuse of real property which may be complicated by the presence or potential presence of hazardous substances, pollutants or contaminants, and which have the potential to contribute to adverse ground or surface WQ if not redeveloped.	<input type="checkbox"/> Higher density development projects which include two distinct categories (credits can only be taken for one category): those with more than seven units per acre of development (lower credit allowance); vertical density developments, for example, those with a Floor to Area Ratio (FAR) of 2 or those having more than 18 units per acre (greater credit allowance).		
<input type="checkbox"/> Mixed use development, such as a combination of residential, commercial, industrial, office, institutional, or other land uses which incorporate design principles that can demonstrate environmental benefits that would not be realized through single use projects (e.g. reduced vehicle trip traffic with the potential to reduce sources of water or air pollution).	<input type="checkbox"/> Transit-oriented developments, such as a mixed use residential or commercial area designed to maximize access to public transportation; similar to above criterion, but where the development center is within one half mile of a mass transit center (e.g. bus, rail, light rail or commuter train station). Such projects would not be able to take credit for both categories, but may have greater credit assigned		<input type="checkbox"/> Redevelopment projects in an established historic district, historic preservation area, or similar significant city area including core City Center areas (to be defined through mapping).	
<input type="checkbox"/> Developments with dedication of undeveloped portions to parks, preservation areas and other pervious uses.	<input type="checkbox"/> Developments in a city center area.	<input type="checkbox"/> Developments in historic districts or historic preservation areas.	<input type="checkbox"/> Live-work developments, a variety of developments designed to support residential and vocational needs together – similar to criteria to mixed use development; would not be able to take credit for both categories.	<input type="checkbox"/> In-fill projects, the conversion of empty lots and other underused spaces into more beneficially used spaces, such as residential or commercial areas.
Calculation of Water Quality Credits	There is no credit for this site because the overall impervious footprint is increased and no other credits apply.			

#### **IV.4.2 Alternative Compliance Plan Information**

Describe an alternative compliance plan (if applicable). Include alternative compliance obligations (i.e., gallons, pounds) and describe proposed alternative compliance measures. *Refer to Section 7.II 3.0 in the Model WQMP.*

N/A

## **Section V      Inspection/Maintenance Responsibility for BMPs**

Fill out information in table below. Prepare and attach an Operation and Maintenance Plan. Identify the funding mechanism through which BMPs will be maintained. Inspection and maintenance records must be kept for a minimum of five years for inspection by the regulatory agencies. *Refer to Section 7.II 4.0 in the Model WQMP.*

<b>BMP Inspection/Maintenance</b>			
<b>BMP</b>	<b>Reponsible Party(s)</b>	<b>Inspection/ Maintenance Activities Required</b>	<b>Minimum Frequency of Activities</b>
Bio-Clean Catch Basin Filter Insert	McDonald's	Refer to Operations and Maintenance in Appendix J	Quarterly and at least once before the beginning of the raining season (October 1st)
Modular Wetland System	McDonald's	Maintenance in Appendix J	Quarterly and at least once before the beginning of the raining season (October 1st)
Underground System	McDonald's	Maintenance in Appendix J	Quarterly and at least once before the beginning of the raining season (October 1st)
"No Dumping" Storm Drain Stencil	McDonald's	Replace existing stencilling	As needed
NI - Education for Property Owners, Tenants and Occupants	McDonald's	The owner shall employ an educational program to staff encompassing importance of stormwater management and BMP implementation.	Upon initial employment, Annually thereafter

**Water Quality Management Plan (WQMP)**  
**McDonalds Santa Ana**

N2 – Activity Restrictions	McDonald’s	<p>The Project will establish the following policies prohibiting activities during operations.</p> <ul style="list-style-type: none"> <li>• Prohibit discharge of fertilizer, pesticide, or animal waste to street or storm drain.</li> <li>• Prohibit blowing or sweeping of debris (leaf litter, grass clippings, litter, etc.) into street or storm drain.</li> <li>• Require dumpster lid to be closed at all times.</li> <li>• Prohibit discharge of paint or masonry waste to street or storm drain</li> <li>• Prohibit vehicle washing, maintenance, or repair on premises.</li> </ul>	Varies by BMP
N3 - Common Area Landscape Management	McDonald’s	<p>The owner shall direct maintenance staff to employ landscaping practices be consistent with the City of Santa Ana requirements for use of fertilizer, pesticides, and City ordinances for water conservation.</p>	Quarterly, as seasons change
N4-BMP Maintenance	McDonald’s	<p>The following BMPs and practices shall be employed and regularly maintained:</p> <p>Site Design BMPs</p> <ul style="list-style-type: none"> <li>• SD-10 Site Design &amp; Landscape Planning</li> <li>• SD-12 Efficient Irrigation</li> <li>• SD-13 Storm Drain Signage</li> <li>• SD-32 Trash Storage Areas Source Control BMPs</li> </ul> <p>SC-10 Non-Stormwater Discharges</p> <ul style="list-style-type: none"> <li>• SC-11 Spill Prevention, Control and Cleanup</li> <li>• SC-41 Building and Grounds Maintenance</li> <li>• SC-44 Drainage System Maintenance</li> </ul>	Varies by BMP
N10 Uniform Fire Code Implementation	McDonald’s	<ul style="list-style-type: none"> <li>• Fire riser is located at the northwest corner of the building.</li> <li>• Sewer cleanout is located on the north face of the building.</li> <li>• During a fire sprinkler test, the fire riser discharge shall be connected by a hose to the sewer cleanout.</li> <li>• See the note in Fact Sheet SC-41 “Building and Ground Maintenance”</li> </ul>	Regularly (2 times a year minimum) or as determined necessary.

**Water Quality Management Plan (WQMP)**  
**McDonalds Santa Ana**

<p>N12 Employee Training</p>	<p>McDonald's</p>	<p>The owner shall employ an educational program to staff encompassing importance of stormwater management and BMP implementation.</p>	<p>Upon initial employment, Annually thereafter</p>
<p>N12 Common Area Catch Basin Inspection</p>	<p>McDonald's</p>	<ul style="list-style-type: none"> <li>• Immediate repair of any deterioration threatening structural integrity.</li> <li>• Cleaning as frequently as necessary to prevent from reaching 40% full</li> <li>• Inspect and repair/replace stenciling as necessary</li> <li>• Clean catch basins/inlets before wet season to remove sediments and debris accumulated during the summer</li> <li>• Conduct inspections more frequently during the wet season for problem areas where sediment or trash accumulates more often. Clean and repair as needed.</li> <li>• Keep accurate logs of the number of catch basins cleaned</li> <li>• Store waste collected from cleaning activities of the drainage system in appropriate containers or temporary storage sites in a manner that prevents discharge to the storm drain</li> <li>• Dewater the wastes if necessary. Properly dispose of de-watered material.</li> </ul>	<p>Quarterly, as seasons change</p>
<p>N15 Street Sweeping Private Streets and Parking Lots</p>	<p>McDonald's</p>	<ul style="list-style-type: none"> <li>• Plaza, sidewalks, and parking lots shall be swept regularly to prevent accumulation of litter and debris</li> <li>• All paved surfaces must be power cleaned at least one time a year or more as required to prevent polluted runoff.</li> <li>• Debris from pressure washing shall be collected to prevent entry into the storm drain system. Washwater containing any cleaning agent or degreaser shall be collected and discharged to the sanitary sewer and not discharged to a storm drain.</li> <li>• See Fact Sheets SC-43 "Parking/Storage Area Maintenance" and SC-70 "Road and Street Maintenance"</li> </ul>	<p>Daily</p>



## **Section VI BMP Exhibit (Site Plan)**

### **VI.1 BMP Exhibit (Site Plan)**

Include a BMP Exhibit (Site Plan), at a size no less than 24" by 36," which includes the following minimum information:

- Insert in the title block (lower right hand corner) of BMP Exhibit: the WQMP Number (assigned by staff) and the grading/building or Planning Application permit numbers
- Project location (address, tract/lot number(s), etc.)
- Site boundary
- Land uses and land covers, as applicable
- Suitability/feasibility constraints
- Structural BMP locations
- Drainage delineations and flow information
- Delineate the area being treated by each structural BMP
- GIS coordinates for LID and Treatment Control BMPs
- Drainage connections
- BMP details
- Preparer name and stamp

Please do not include any areas outside of the project area or any information not related to drainage or water quality. The approved BMP Exhibit (Site Plan) shall be submitted as a plan sheet on all grading and building plan sets submitted for plan check review and approval. The BMP Exhibit shall be at the same size as the rest of the plan sheets in the submittal and shall have an approval stamp and signature prior to plan check submittal.

### **VI.2 Submittal and Recordation of Water Quality Management Plan**

Following approval of the Final Project-Specific WQMP, three copies of the approved WQMP (including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Appendices) shall be submitted. In addition, these documents shall be submitted in a PDF format.

Each approved WQMP (including BMP Exhibit, Operations and Maintenance (O&M) Plan, and Appendices) shall be recorded in the Orange County Clerk-Recorder's Office, prior to close-out of grading and/or building permit. Educational Materials are not required to be included.

## Section VII Educational Materials

Refer to the Orange County Stormwater Program ([ocwatersheds.com](http://ocwatersheds.com)) for a library of materials available. Please only attach the educational materials specifically applicable to this project. Other materials specific to the project may be included as well and must be attached.

<b>Education Materials</b>			
<b>Residential Material</b> <b>(<a href="http://www.ocwatersheds.com">http://www.ocwatersheds.com</a>)</b>	<b>Check If</b> <b>Applicable</b>	<b>Business Material</b> <b>(<a href="http://www.ocwatersheds.com">http://www.ocwatersheds.com</a>)</b>	<b>Check If</b> <b>Applicable</b>
The Ocean Begins at Your Front Door	<input type="checkbox"/>	Tips for the Automotive Industry	<input type="checkbox"/>
Tips for Car Wash Fund-raisers	<input type="checkbox"/>	Tips for Using Concrete and Mortar	<input checked="" type="checkbox"/>
Tips for the Home Mechanic	<input type="checkbox"/>	Tips for the Food Service Industry	<input checked="" type="checkbox"/>
Homeowners Guide for Sustainable Water Use	<input type="checkbox"/>	Proper Maintenance Practices for Your Business	<input checked="" type="checkbox"/>
Household Tips	<input type="checkbox"/>	<b>Other Material</b>	<b>Check If Attached</b>
Proper Disposal of Household Hazardous Waste	<input type="checkbox"/>		
Recycle at Your Local Used Oil Collection Center (North County)	<input type="checkbox"/>	IC 7 - Tips for Landscape Maintenance	<input checked="" type="checkbox"/>
Recycle at Your Local Used Oil Collection Center (Central County)	<input type="checkbox"/>	IC 15 - Tips for Parking and Storage Area Maintenance	<input checked="" type="checkbox"/>
Recycle at Your Local Used Oil Collection Center (South County)	<input type="checkbox"/>	IC 21 - Waste Handling and Disposal	<input checked="" type="checkbox"/>
Tips for Maintaining a Septic Tank System	<input type="checkbox"/>	IC 22 - Eating and Drinking Establishments	<input checked="" type="checkbox"/>
Responsible Pest Control	<input type="checkbox"/>	IC 23 - Fire Sprinkler Testing	<input checked="" type="checkbox"/>
Sewer Spill	<input type="checkbox"/>		<input type="checkbox"/>
Tips for the Home Improvement Projects	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Horse Care	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Landscaping and Gardening	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Pet Care	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Pool Maintenance	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Residential Pool, Landscape and Hardscape Drains	<input type="checkbox"/>		<input type="checkbox"/>
Tips for Projects Using Paint	<input type="checkbox"/>		<input type="checkbox"/>

# **Attachment A**

# **Watershed Area**

MCDONALD'S SANTA ANA, CA  
VICINITY MAP



E SANTA CLARA AVE

N TUSTIN AVE

COSTA MESA FWY

YORBA ST

PROJECT LOCATION:  
2109 E SANTA CLARA AVE  
SANTA ANA, CA 92705

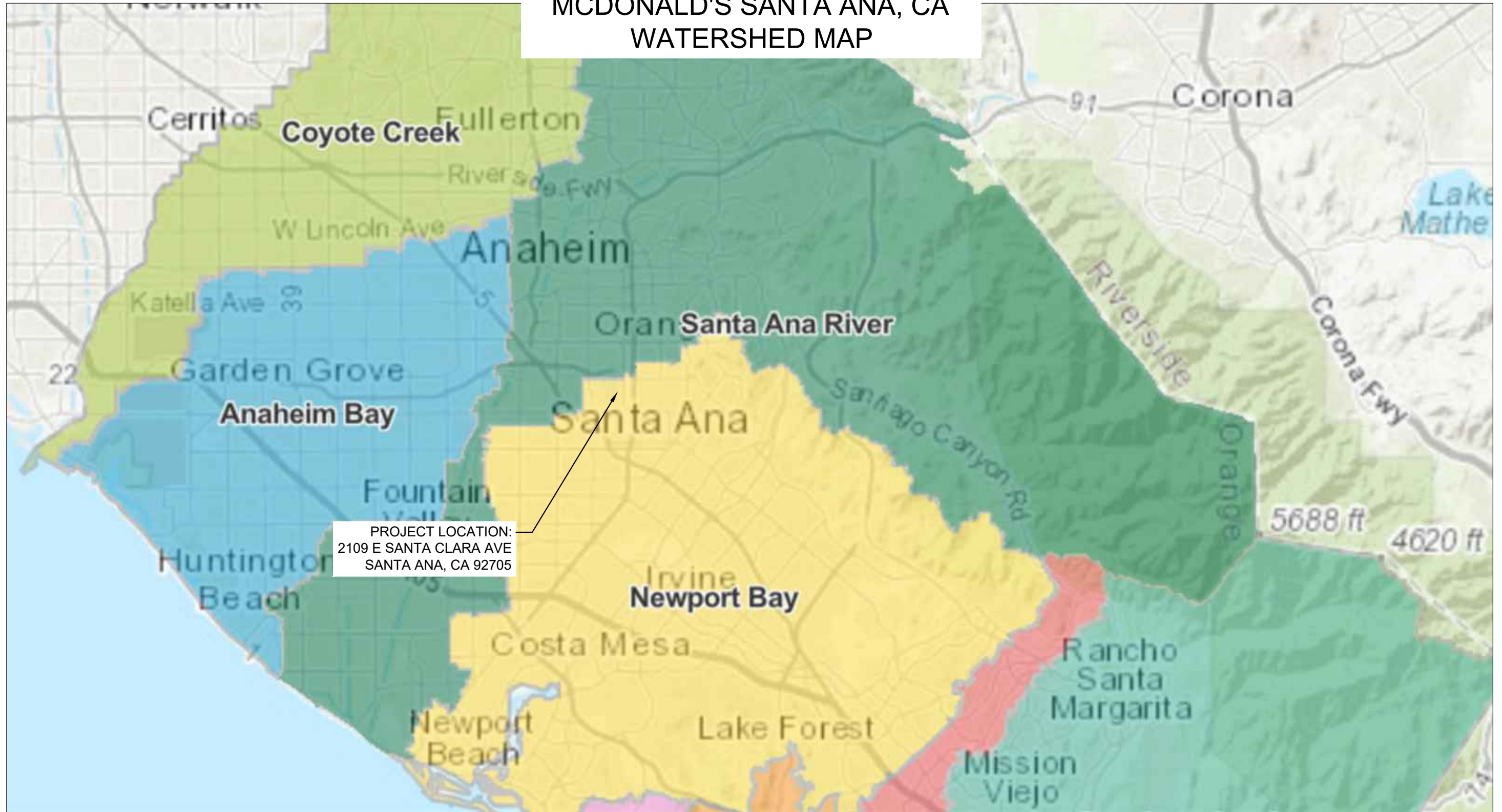
OLD TUSTIN AVE

55

**Kimley»Horn**

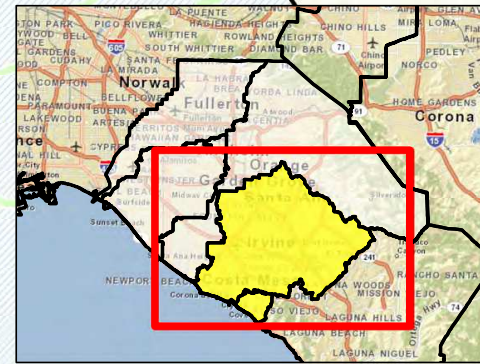
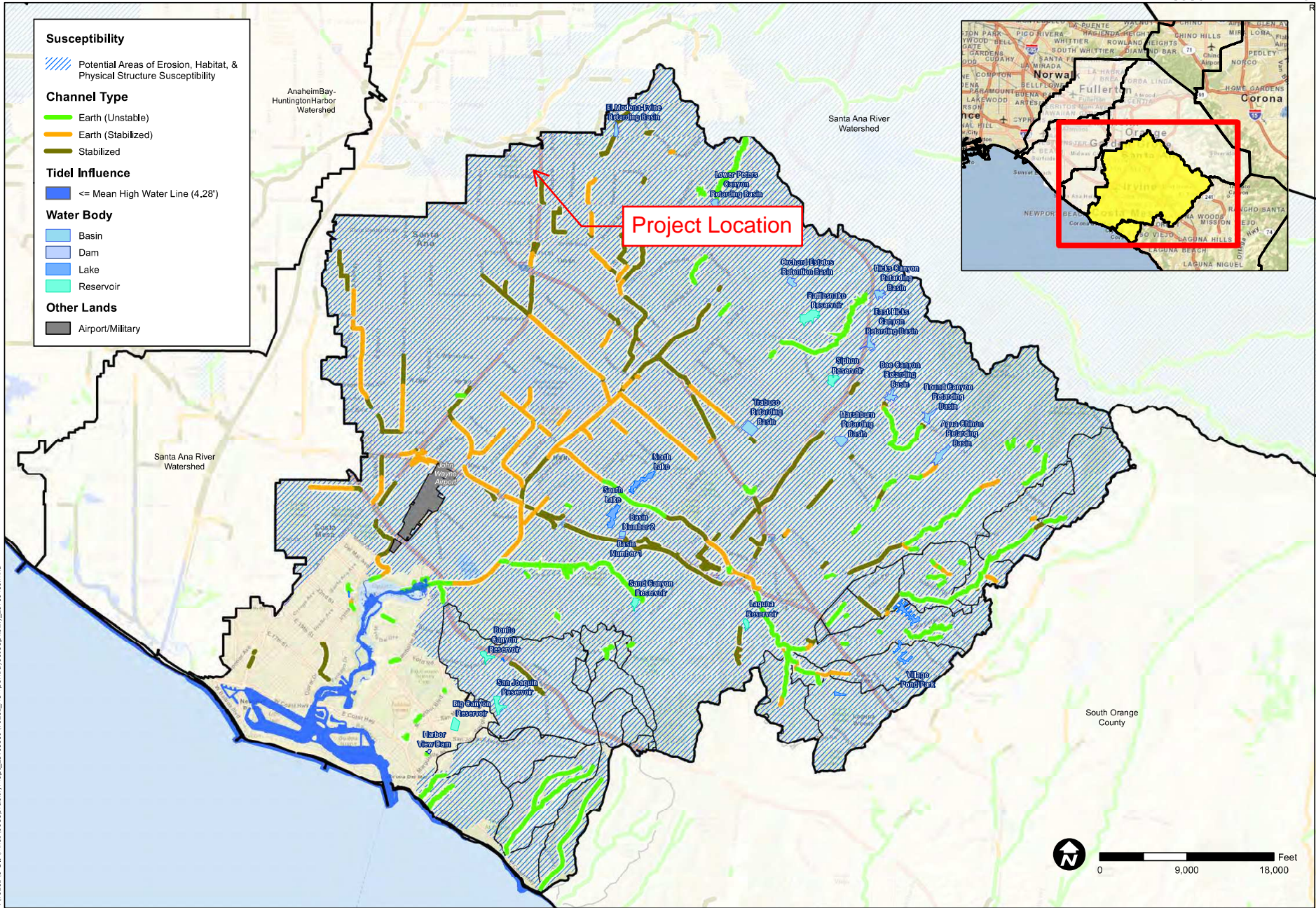
© 2018 KIMLEY-HORN AND ASSOCIATES, INC.  
765 THE CITY DRIVE, SUITE 200, ORANGE, CA 92868  
PHONE: 714-939-1030 FAX: 714-938-9488

MCDONALD'S SANTA ANA, CA  
WATERSHED MAP



**Kimley»Horn**

© 2022 KIMLEY-HORN AND ASSOCIATES, INC.  
1100 TOWN AND COUNTRY ROAD, SUITE 700, ORANGE, CA 92868  
PHONE: 714-939-1030 FAX: 714-938-9488



**Susceptibility**

Potential Areas of Erosion, Habitat, & Physical Structure Susceptibility

**Channel Type**

Earth (Unstable)  
 Earth (Stabilized)  
 Stabilized

**Tidel Influence**

<= Mean High Water Line (4.28')

**Water Body**

Basin  
 Dam  
 Lake  
 Reservoir

**Other Lands**

Airport/Military

**Project Location**

TITLE  
 SUSCEPTIBILITY ANALYSIS  
 NEWPORT BAY-  
 NEWPORT COASTAL STREAMS

ORANGE COUNTY  
 WATERSHED  
 MASTER PLANNING

JOB

SCALE	1" = 12000'
DRAWN BY	
CHECKED BY	
DATE	04/20/10
JOB NO.	8524-E

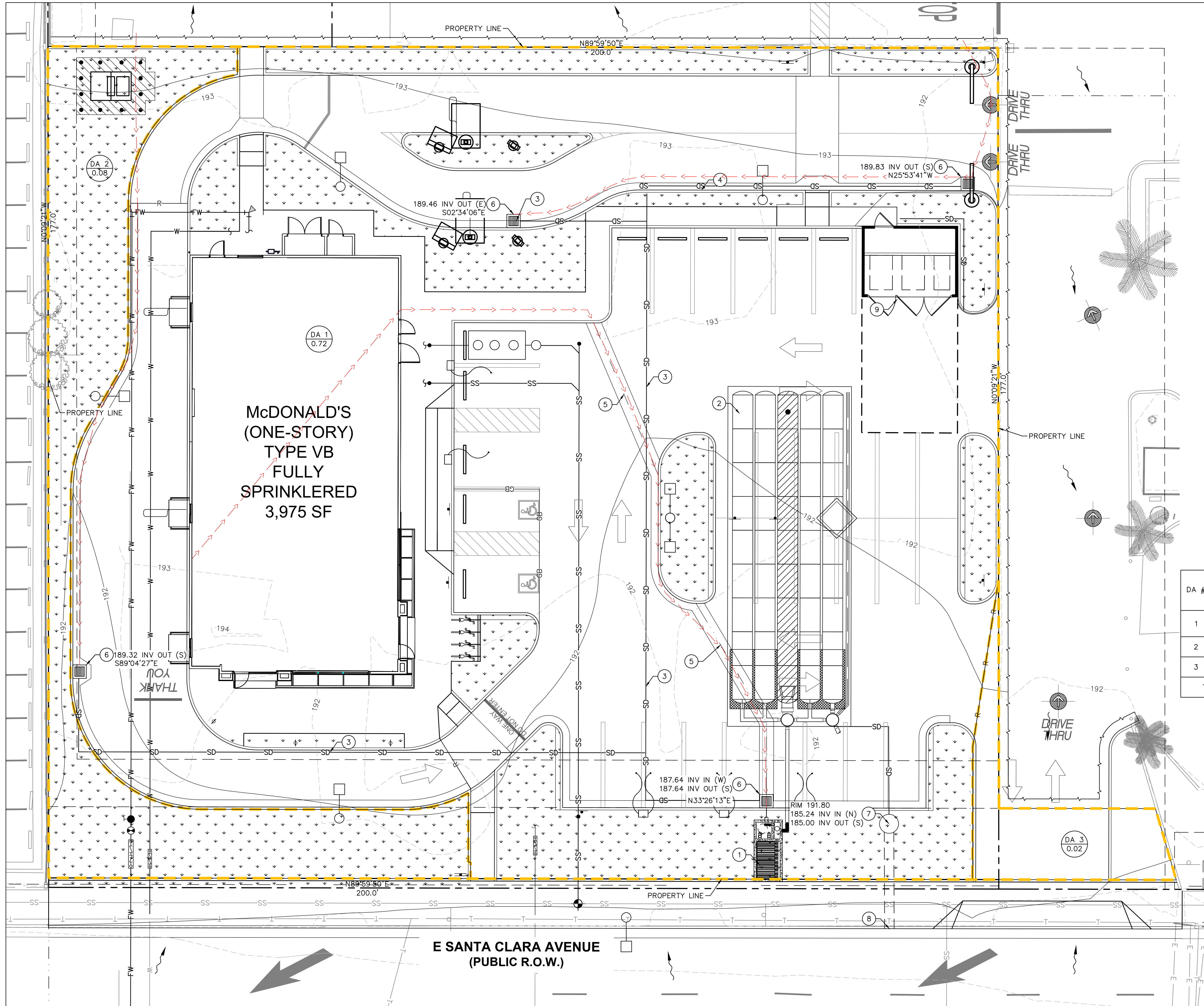


FIGURE  
 4

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# **Attachment B**

# **WQMP Site Plan**



**LEGEND**

- CENTER LINE
- PROPERTY LINE
- PROPOSED PROPERTY LINE
- EASEMENT LINE
- APPROXIMATE LIMITS OF DISTURBANCE
- DRAINAGE AREA BOUNDARY
- PROPOSED RIDGE LINE
- PROPOSED GRADE BREAK LINE
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- PROPOSED FLOW LINE
- PROPOSED STORMWATER LINE
- EXISTING FLOW DIRECTION
- PROPOSED FLOW (DIRECTION AND SLOPE)
- IMPERVIOUS SURFACE
- LANDSCAPE/PLANTER AREA

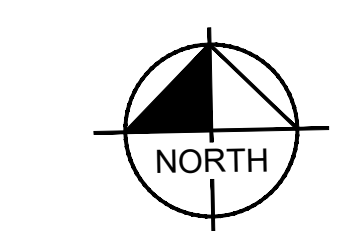
**GRADING AND DRAINAGE NOTES**

- 1 PROPOSED ECOPURE BIOFILTER (BIO-7: PROPRIETARY BIOTREATMENT) PER DETAIL 1, SHEET 2
- 2 PROPOSED UNDERGROUND DETENTION SYSTEM PER DETAIL 3, SHEET 3 & 4
- 3 6" SDR-35 PVC STORM DRAIN PIPE SLOPED AT 0.5% MIN.
- 4 CONCRETE CURB AND GUTTER.
- 5 CONCRETE VALLEY GUTTER.
- 6 24" X 24" JENSEN PRECAST DROP INLET WITH CATCH BASIN FILTER INSERT FOR TRASH CAPTURE. (PRE-2)
- 7 PROPOSED PUMP PER DETAIL 4, SHEET 5
- 8 PROPOSED PARKWAY DRAIN
- 9 PROPOSED TRASH ENCLOSURE

**GENERAL NOTE:**

THIS SITE WILL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SANTA ANA REGION ORDER NO. R8-2009-0030 DISCHARGE REQUIREMENTS (MS4 PERMIT). CONTACT MINDY LY (714) 647-5665 FOR ADDITIONAL INFORMATION

DA #	BMP ID#	TOTAL DRAINAGE AREA (SF)	IMPERVIOUS AREA (SF)	PERVIOUS AREA (SF)	Q (CFS)	DCV (CF)	BMP PROVIDED	LATITUDE	LONGITUDE
1	MWS-1	31,150	26,194	4,956	0.154	1,638	BIOTREATMENT SYSTEM	33°46'02.2"N	117°50'12.0"W
2	-	3,602	0	3,602	-	-	SELF TREATING	-	-
3	-	779	779	0	-	-	DE-MINIMUS	-	-
<b>TOTAL</b>		<b>35531</b>	<b>26973</b>	<b>8558</b>	<b>0.154</b>	<b>1,638</b>			



GRAPHIC SCALE IN FEET  
0 5 10 20

SCALE  
1" = 10'  
WHEN PRINTED AT FULL SIZE (24"X36")

**Underground Service Alert**  
of Southern California  
CALL: TOLL FREE 1-800-422-4133  
TWO WORKING DAYS BEFORE YOU DIG

**NOTICE TO CONTRACTOR**  
PURSUANT TO ASSEMBLY BILL 3019, NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS AN INQUIRY I.D. NUMBER FROM "UNDERGROUND SERVICE ALERT" (1-800-422-4133) AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.

FILE NO.:

REVISIONS			
NUMBER	DATE	INITIALS	DESCRIPTION

**REFERENCES**

BENCHMARK NO.: 3C-26-06 ELEV.: 173.744' NAVD88  
 THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET.  
 THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14566, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.  
 CONSTRUCTION COMPLETED:

REGISTERED PROFESSIONAL ENGINEER  
 CIVIL  
 STATE OF CALIFORNIA  
 RCE NO. 90371

PREPARED UNDER THE SUPERVISION OF:  
 HANNAH LUEVANO, P.E.  
 KIMLEY-HORN  
 1100 TOWN & COUNTRY RD.  
 SUITE 700  
 ENGINEER OF RECORD  
 RCE NO.: 90371  
 DATE: 7/6/2023

**PROPOSED DRIVE-THRU RESTAURANT**  
 2109 E SANTA CLARA AVENUE  
 SANTA ANA, CA 92705  
**PUBLIC WORKS AGENCY**  
 CITY OF SANTA ANA

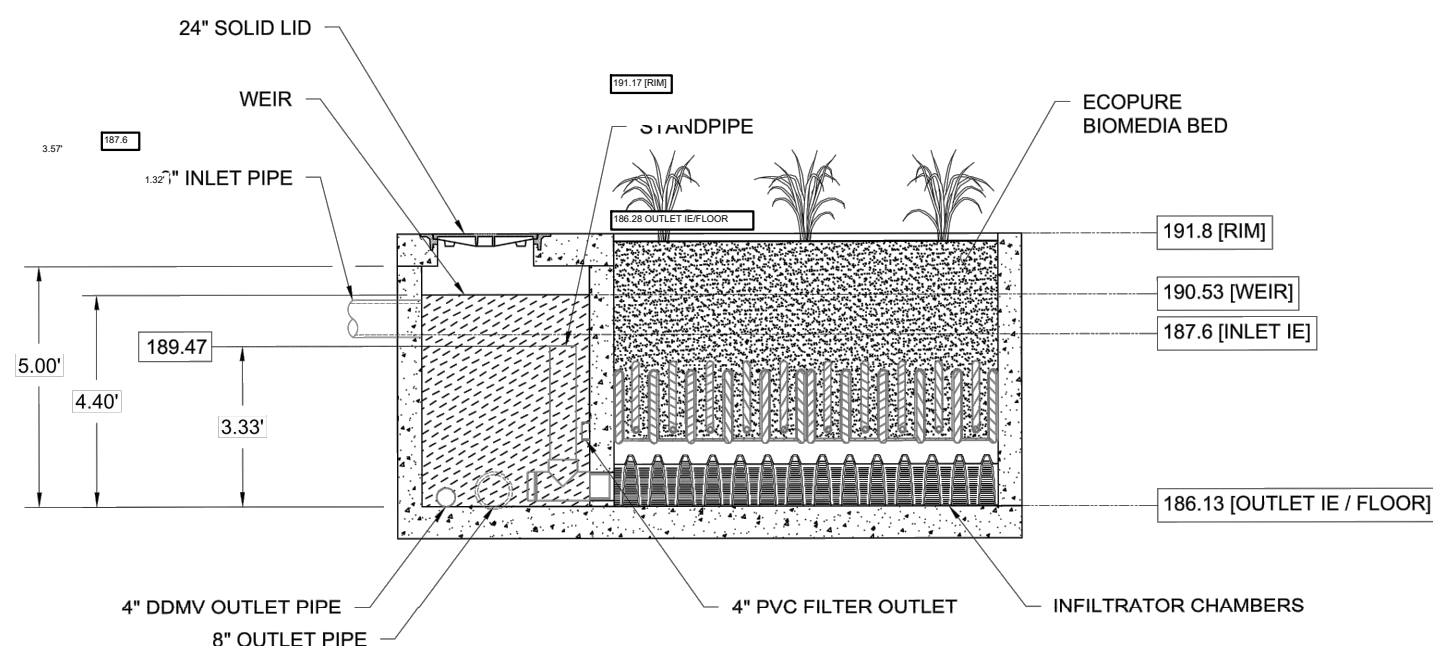
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**WQMP MAP**

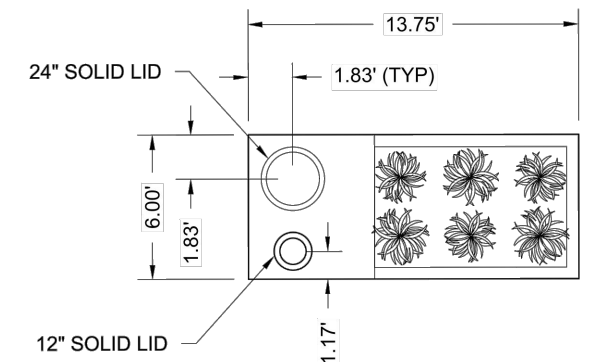
SHEET NO. 1 OF 5

PROJECT NO. YY-NMNN-PROJECT TITLE PROJECT LIMITS

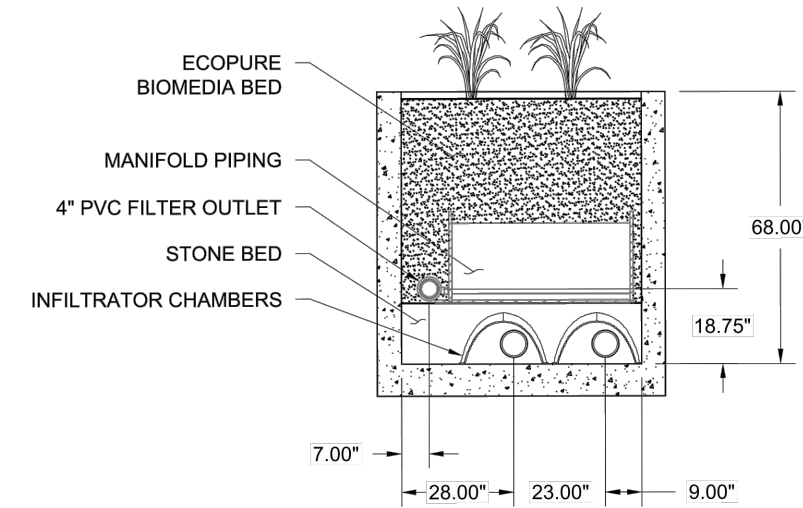




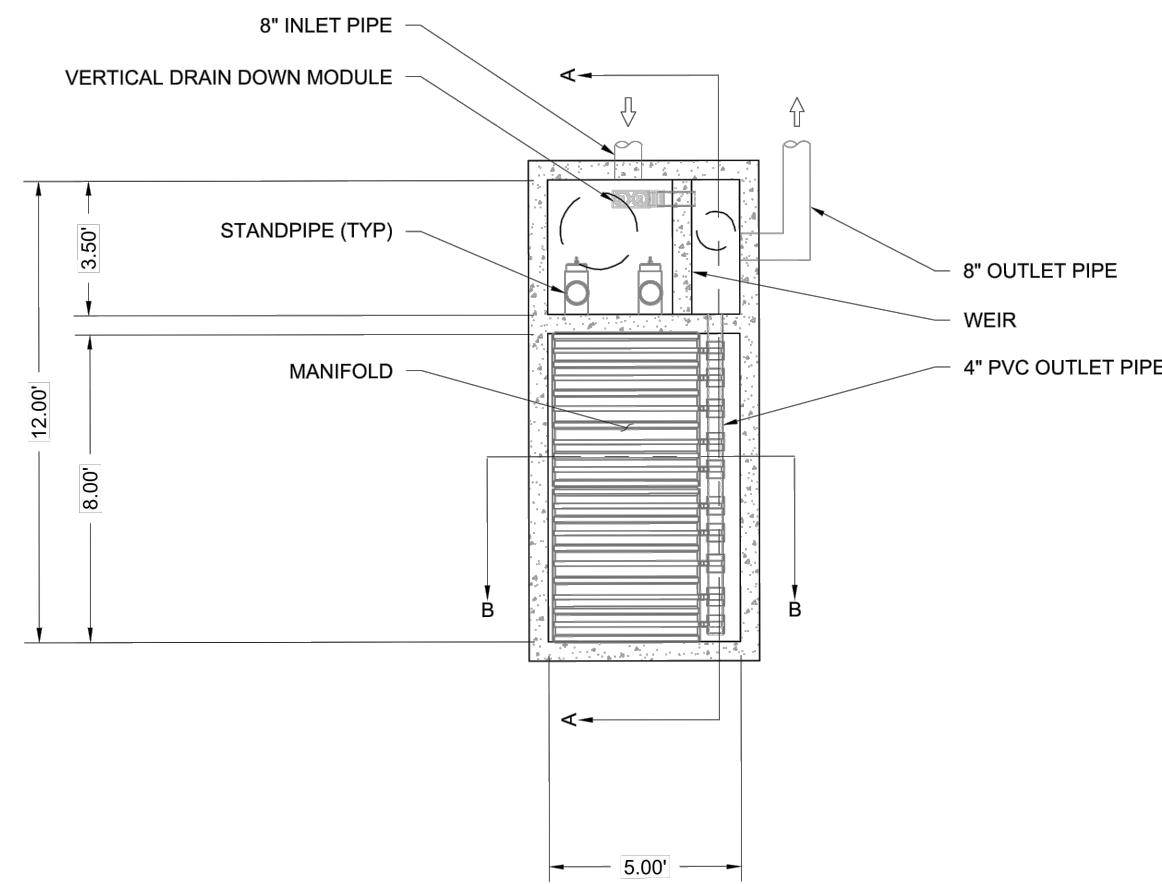
SECTION A-A  
NTS



TOP SLAB PLAN VIEW  
NTS / PIPE CONNECTIONS NOT SHOWN



SECTION B-B  
NTS



PLAN VIEW  
NTS

ECOPURE BIOFILTER 120	
WATER QUALITY FLOW RATE	0.27 CFS
EFFECTIVE LOADING RATE	1 GPM/SF
DRAINAGE AREA	
TREATED SEDIMENT CAPACITY	

THE ECOPURE BIOFILTER™ IS A BIOFILTRATION STORMWATER TREATMENT TECHNOLOGY RELIES ON PHYSICAL, CHEMICAL AND BIOLOGICAL MECHANISMS TO REMOVE TOTAL SUSPENDED SOLIDS, TOTAL PHOSPHORUS, TOTAL NITROGEN, HEAVY METALS, OIL AND GREASE, TRASH AND BACTERIA. THE ECOPURE SYSTEM PROVIDES LINEAR TREATMENT DESIGN WITH AN UPFRONT PRETREATMENT CHAMBER.

MICDONALD'S 4-5088 PROPOSED DRIVE-THRU RESTAURANT SANTA ANA - CA	
DATE: 04/17/23	DRAWN: JLM
PROJECT #: S345647	CHECKED: KLJ/R
DATE: 04/17/23	DRAWN: JLM
PROJECT #: S345647	CHECKED: KLJ/R
DATE: 04/17/23	DRAWN: JLM
PROJECT #: S345647	CHECKED: KLJ/R
DESCRIPTION: FLOOR PLAN FOR DRIVE-THRU RESTAURANT, INCLUDING ALL NECESSARY CIVIL AND MECHANICAL DETAILS FOR CONSTRUCTION.	
4640 TRUEMAN BLVD HILLIARD, OH 43026	
NOT TO SCALE	
3	7



Antoinette Jungers, EIT  
Civil Analyst  
Kimley-Horn and Associates

June 29, 2023

RE: McDonald's 4-5088 (Santa Ana)  
TAPE Approval and Orange County Public Works Approval

Ms. Jungers,

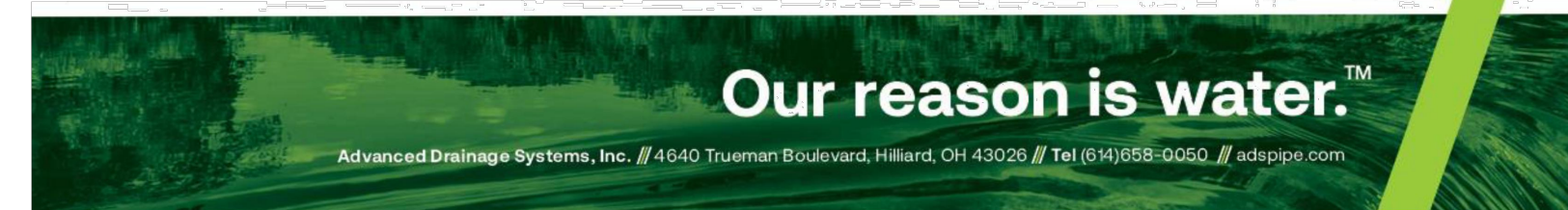
ADS EcoPure BioFilter has undergone rigorous testing from Washington Department of Ecology (WaDOE), and has been reviewed and certified under the Technology Assessment Protocol - Ecology, better known as the TAPE program.

TAPE certification in Orange County and other regions of Southern California is the industry standard per the Orange County Technical Guidance Document and other storm water quality manuals. See attached for the TAPE assessment report for ADS EcoPure BioFilter.

Please don't hesitate to contact an ADS representative with any questions or comments.

Regards,  
Terence Zhao

Engineered Products Manager  
Advanced Drainage Systems, Inc.  
Mobile: (626) 425 - 2874  
Email: Terence.zhao@adspipe.com



FGP-0001

**FloGard® FILTER**  
-INSTALLED INTO CATCH BASIN-

U.S. PATENT # 6,00,023 & 6,877,029

**FloGard®**  
Catch Basin Insert Filter  
Grated Inlet Style

DETAIL A  
EXPLODED VIEW

**NOTES:**

- Filter insert shall have a high flow bypass feature.
- Filter support frame shall be constructed from stainless steel Type 304.
- Filter medium shall be Fossil Rock™, installed and maintained in accordance with manufacturer specifications.
- Storage capacity reflects 80% of maximum solids collection prior to impeding filtering bypass.

Inlet Filtration

7821 Southpark Plaza, Suite 200 | Littleton, CO | (801) 201-1100 | oldcastlestormwater.com

**Oldcastle®**  
Stormwater Solutions

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DRAWING NO: FGP-0001  
REV: C  
ECO-0142  
JPR 7/13/16  
DATE: APR 11/3/06  
SHEET 1 OF 2

ECOPURE BIOFILTER  
N.T.S.

1

24" X 24" DRAIN INLET  
N.T.S.

2

REVISIONS				
NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED/INSTALLED

REFERENCES	
BENCHMARK NO.:	3C-26-06
ELEV.:	173.744' NAVD88
THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET.	
THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14566, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.	
CONSTRUCTION COMPLETED:	

REGISTERED PROFESSIONAL ENGINEER  
HANNAH LUEVANO, P.E.  
RCE NO. 90371  
STATE OF CALIFORNIA  
CIVIL

PREPARED UNDER THE SUPERVISION OF:  
HANNAH LUEVANO, P.E.  
KIMLEY-HORN  
1100 TOWN & COUNTRY RD  
SUITE 700  
213) 261-4040

ENGINEER OF RECORD  
RCE NO.: 90371

DATE: 7/6/2023

**PROPOSED DRIVE-THRU RESTAURANT**  
2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705  
**PUBLIC WORKS AGENCY**  
CITY OF SANTA ANA

**WQMP DETAILS**

FILE NO.:

SHEET NO.  
2 OF 5

**Underground Service Alert**  
of Southern California

CALL: **TOLL FREE 1-800-422-4133**

TWO WORKING DAYS  
BEFORE YOU DIG

**NOTICE TO CONTRACTOR**

PURSUANT TO ASSEMBLY BILL 3019, NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS AN INQUIRY I.D. NUMBER FROM "UNDERGROUND SERVICE ALERT" (1-800-422-4133) AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.

PROJECT NO. YY-NNNN-PROJECT TITLE PROJECT LIMITS

PROJECT INFORMATION table with columns for ENGINEERED PRODUCT, MANAGER, ADS SALES REP, PROJECT NO.



APPROVED BY: SIGNED: DATE: COMPANY: PHONE / EMAIL:



MCDONALD'S 4-5088 PROPOSED DRIVE-THRU RESTAURANT SANTA ANA - CA

MCDONALD'S 4-5088 PROPOSED DRIVE-THRU RESTAURANT SANTA ANA - CA

CONTRACTOR PROVIDED DELIVERY SCHEDULE & SITE INFORMATION:

Table with columns for SYSTEM DESIGNATION / SIZE, SYSTEM DELIVERY DATE, DELIVERY INFORMATION, JOB SITE STREET ADDRESS, CITY, CONTACT, CONTACT PHONE, ALTERNATE CONTACT, ALTERNATE PHONE.

DIRECTIONS TO JOB SITE FROM NEAREST INTERSTATE: (PLEASE NO MAPS)

ADS ECOPURE SPECIFICATIONS

PRODUCTS: A. INTERNAL COMPONENTS: SHALL BE SUBSTANTIALLY CONSTRUCTED OF STAINLESS STEEL, RECYCLED POLYETHYLENE OR OTHER THERMOPLASTIC MATERIAL APPROVED BY THE MANUFACTURER.

ECOPURE MAINTENANCE

THE ECOPURE SYSTEM REQUIRES PERIODIC MAINTENANCE TO CONTINUE OPERATING AT ITS PEAK EFFICIENCY DESIGN. THE MAINTENANCE PROCESS COMPRISES THE REMOVAL AND REPLACEMENT OF FILTER MEDIA AND VEGETATION AND THE CLEANING OF THE VAULT WITH A VACUUM TRUCK.

ECOPURE INSTALLATION NOTES

INSTALLATION OF THE STORMWATER TREATMENT UNIT(S) SHALL BE PERFORMED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUCH INSTRUCTIONS CAN BE OBTAINED BY CALLING ADVANCED DRAINAGE SYSTEMS AT (800) 821-6710 OR BY LOGGING ON TO WWW.ADS-PIPE.COM.

SC-740 STORMTECH CHAMBER SPECIFICATIONS

- 1. CHAMBERS SHALL BE STORMTECH SC-740.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

- 1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE 'STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE'.
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.

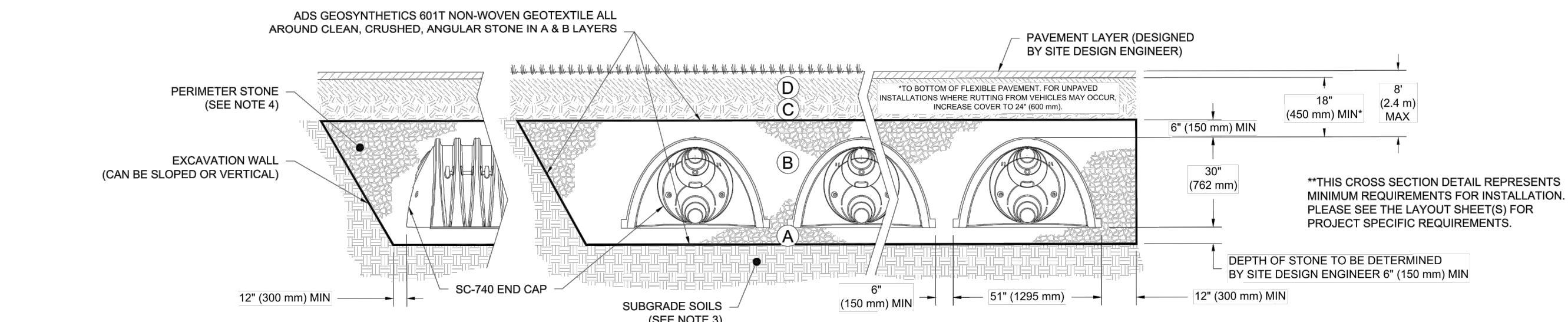
NOTES FOR CONSTRUCTION EQUIPMENT

- 1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED.
3. FULL 30" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

Table with columns: MATERIAL LOCATION, DESCRIPTION, AASHTO MATERIAL CLASSIFICATIONS, COMPACTION / DENSITY REQUIREMENT.

- PLEASE NOTE:
1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR.
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.



NOTES:

- 1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".

PROPOSED LAYOUT

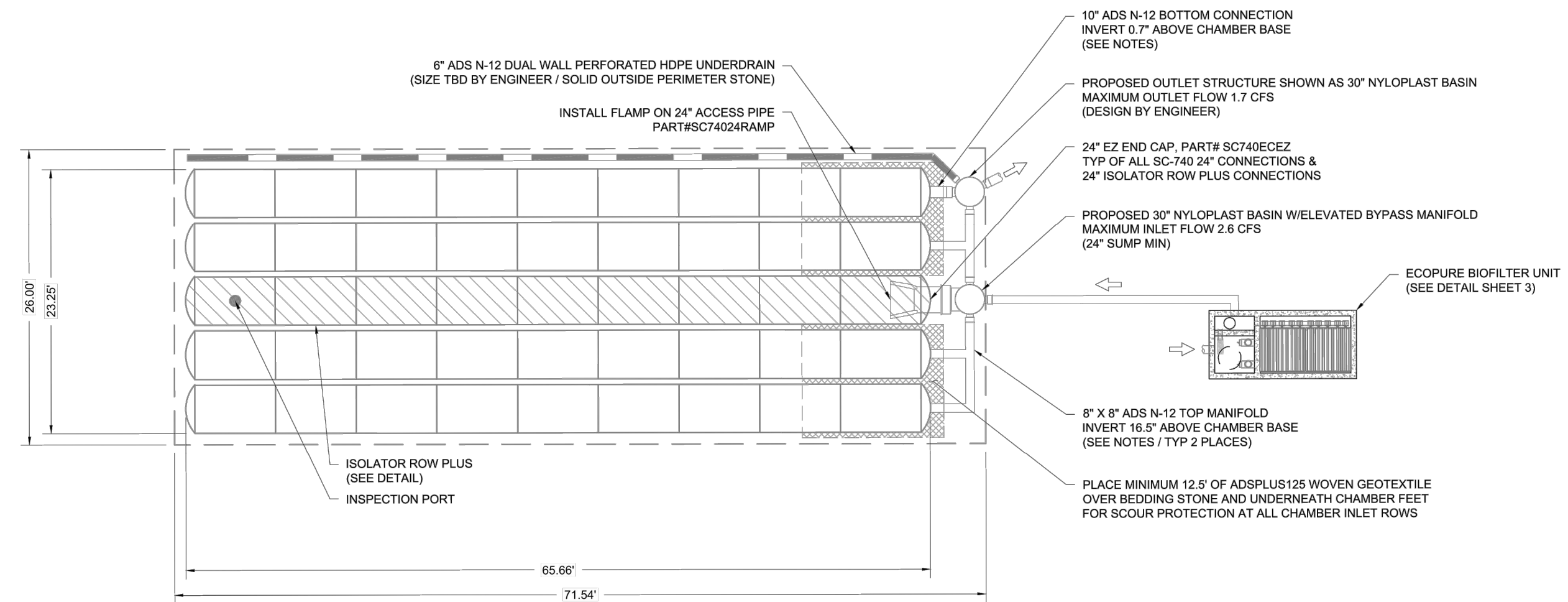
Table with columns: QUANTITY, DESCRIPTION.

PROPOSED ELEVATIONS

Table with columns: ELEVATION, DESCRIPTION.

NOTES

- MANHOLE SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANHOLE SIZING GUIDANCE.
DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANHOLE COMPONENTS IN THE FIELD.



ADS STORMTECH SC-740 CHAMBER SYSTEM N.T.S.

UNDERGROUND SERVICE ALERT

TOLL FREE 1-800-422-4133 TWO WORKING DAYS BEFORE YOU DIG

NOTICE TO CONTRACTOR

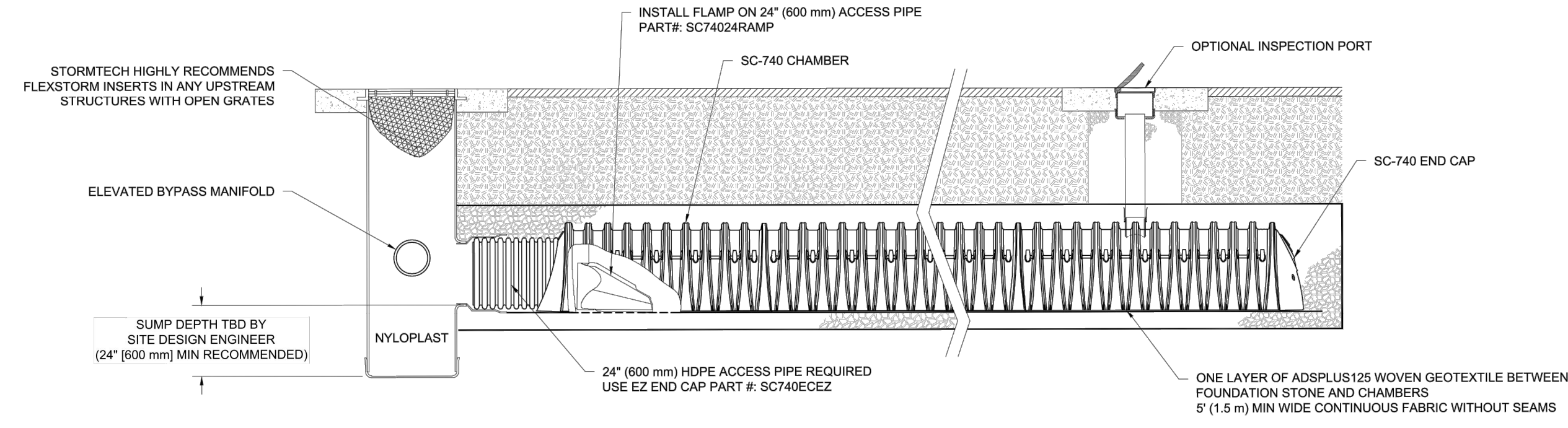
PURSUANT TO ASSEMBLY BILL 3019 NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS AN INQUIRY I.D. NUMBER FROM "UNDERGROUND SERVICE ALERT" (1-800-422-4133) AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.

Table with columns: REVISIONS (NUMBER, DATE, INITIALS, DESCRIPTION), REFERENCES (BENCHMARK NO., ELEV., NAVD88).

Professional Engineer seal and signature block for Hannah Luevano, P.E., Engineer of Record.

Project title block: PROPOSED DRIVE-THRU RESTAURANT 2109 E SANTA CLARA AVENUE SANTA ANA, CA 92705 PUBLIC WORKS AGENCY CITY OF SANTA ANA WQMP DETAILS SHEET NO. 3 OF 5

PROJECT NO. YY-NNNN-PROJECT TITLE PROJECT LIMITS



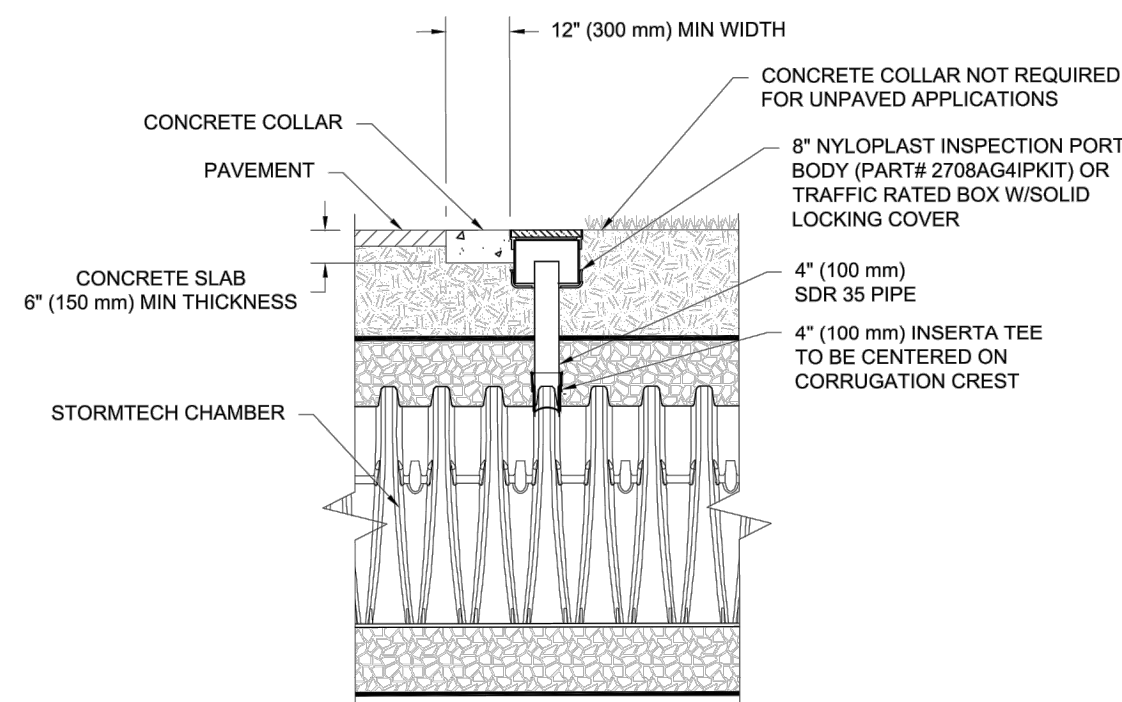
**SC-740 ISOLATOR ROW PLUS DETAIL**  
NTS

**INSPECTION & MAINTENANCE**

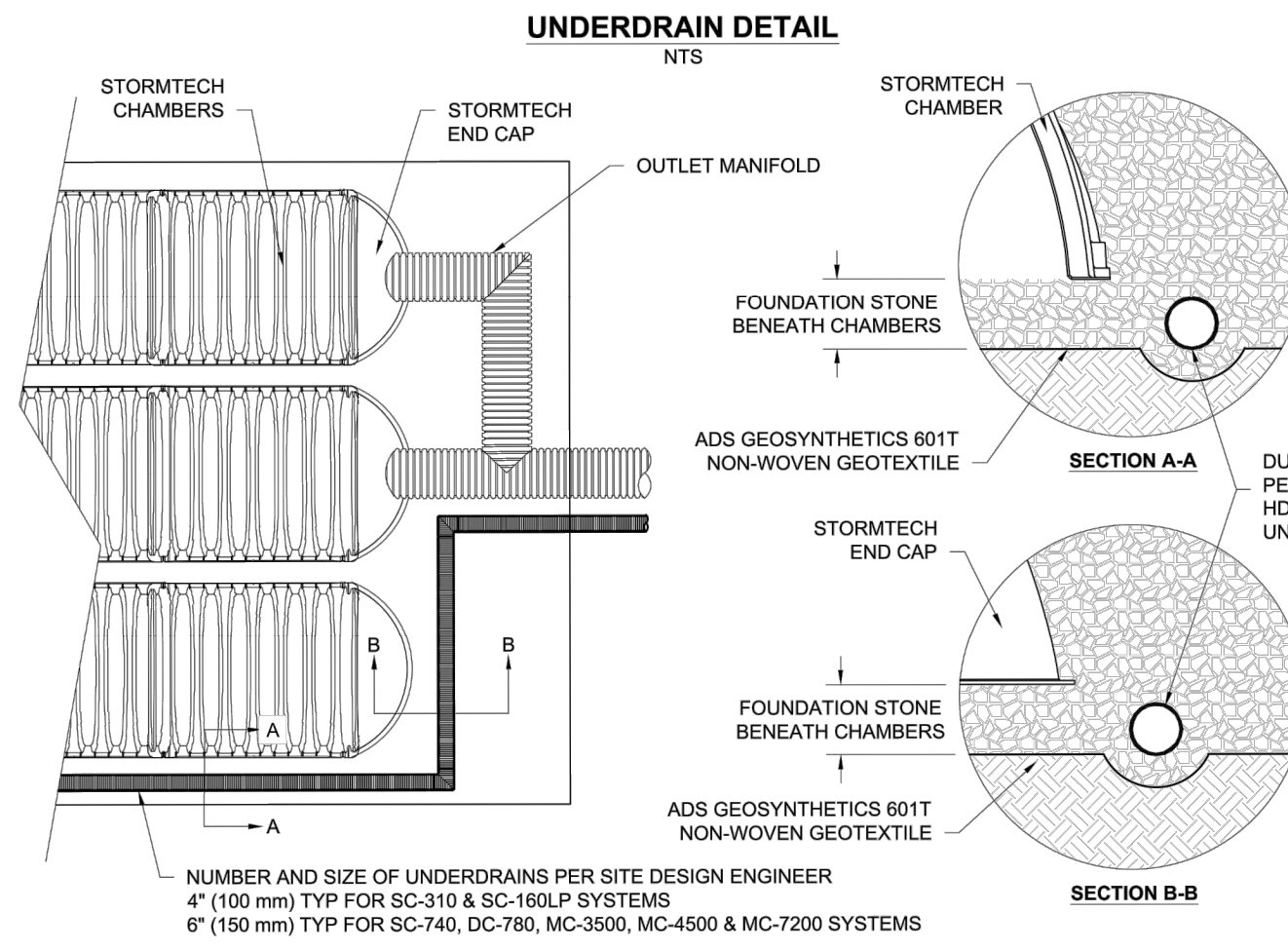
- STEP 1) INSPECT ISOLATOR ROW PLUS FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
- A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW PLUS FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR PLUS ROWS
- B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS THROUGH OUTLET PIPE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- STEP 2) CLEAN OUT ISOLATOR ROW PLUS USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45° (1.1 m) OR MORE IS PREFERRED
  - B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
  - C. VACUUM STRUCTURE SUMP AS REQUIRED
- STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.
- STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

**NOTES**

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.

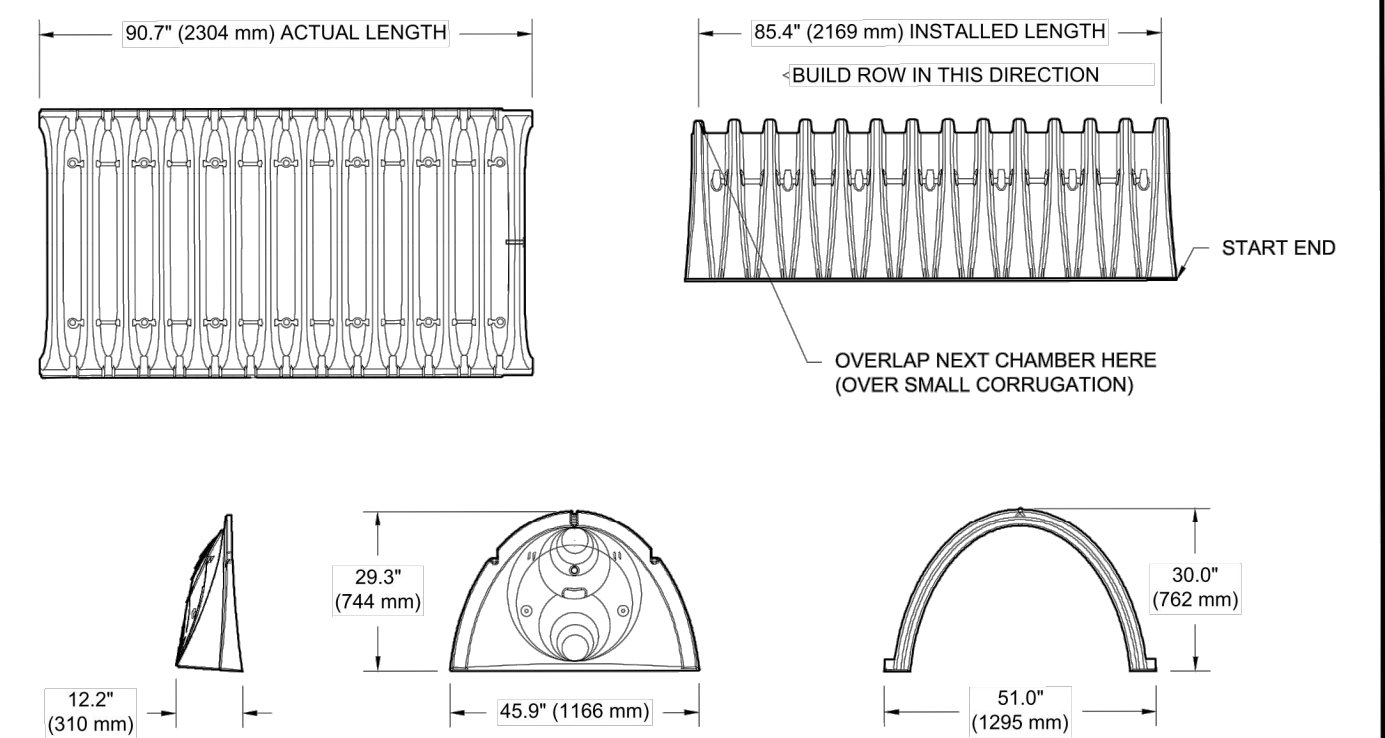


**4\"/> PVC INSPECTION PORT DETAIL  
(SC SERIES CHAMBER)**  
NTS



NUMBER AND SIZE OF UNDERDRAINS PER SITE DESIGN ENGINEER  
 4" (100 mm) TYP FOR SC-310 & SC-160LP SYSTEMS  
 6" (150 mm) TYP FOR SC-740, DC-780, MC-3500, MC-4500 & MC-7200 SYSTEMS

**SC-740 TECHNICAL SPECIFICATION**  
NTS



**NOMINAL CHAMBER SPECIFICATIONS**

SIZE (W X H X INSTALLED LENGTH)	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET (1.30 m <sup>3</sup> )
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET (2.12 m <sup>3</sup> )
WEIGHT	75.0 lbs (33.6 kg)

\*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS

PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"  
 PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"  
 PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC740EPE08T / SC740EPE08TPC	8" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE08B / SC740EPE08BPC	---	---	---	0.5" (13 mm)
SC740EPE08T / SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC	---	---	---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC	---	---	---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC	---	---	---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC	---	---	---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC	---	---	---	1.6" (41 mm)
SC740ECEZ*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740ECEZ ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2894.

\* FOR THE SC740ECEZ THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL.

**StormTech**  
Chamber System  
888-892-2894 | WWW.STORMTECH.COM

**ADS**  
4640 TRILBYAN BLVD  
HILLIARD, OH 43026

DATE: 04/17/23 DRAWN: JLM CHECKED: KJL/RR PROJECT #: S39547

6 SHEET OF 7

**StormTech**  
Chamber System  
888-892-2894 | WWW.STORMTECH.COM

**ADS**  
4640 TRILBYAN BLVD  
HILLIARD, OH 43026

DATE: 04/17/23 DRAWN: JLM CHECKED: KJL/RR PROJECT #: S39547

7 SHEET OF 7

ADS STORMTECH SC-740 CHAMBER SYSTEM  
N.T.S.

3

REVISIONS				
NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED

REFERENCES	
BENCHMARK NO.:	3C-26-06
ELEV.:	173.744' NAVD88
THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET.	
THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14566, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.	
CONSTRUCTION COMPLETED:	

**REGISTERED PROFESSIONAL ENGINEER**  
 CIVIL  
 RCE NO. 50371

PREPARED UNDER THE SUPERVISION OF:  
 HANNAH LUEVANO, P.E.  
 KIMLEY-HORN  
 1100 TOWN & COUNTRY RD  
 SUITE 700  
 (213) 261-4040

ENGINEER OF RECORD  
 RCE NO. 90371

DATE: 7/6/2023

**PROPOSED DRIVE-THRU RESTAURANT**  
 2109 E SANTA CLARA AVENUE  
 SANTA ANA, CA 92705  
**PUBLIC WORKS AGENCY**  
 CITY OF SANTA ANA

**WQMP DETAILS**

SHEET NO. 4 OF 5

**Underground Service Alert**  
 of Southern California

CALL: TOLL FREE 1-800-422-4133

TWO WORKING DAYS BEFORE YOU DIG

**NOTICE TO CONTRACTOR**

PURSUANT TO ASSEMBLY BILL 3019, NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS AN INQUIRY I.D. NUMBER FROM "UNDERGROUND SERVICE ALERT" (1-800-422-4133) AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.

PROJECT NO. YY-NMNN-PROJECT TITLE PROJECT LIMITS

**PACKAGED STORM WATER LIFT STATION**  
**McDONALD'S - 2109 E. SANTA CLARA AVE - SANTA ANA, CA**

**SCOPE OF SUPPLY:**  
 Furnish and install complete pre-packaged duplex sewage lift station model #PSI-KIM041923 as manufactured by Pacific Southwest Industries (national phone # 800-358-9095)

This pre-packaged Lift Station shall incorporate a quick removal system manufactured by the pump manufacturer. The pump(s) shall be guided to the discharge base elbow by a single or double guide rail and shall extend from the discharge base elbow to the upper guide bracket mounted on 1-5/8" x 1-5/8" channel strut just below the basin cover. Stainless steel lifting chain or cable shall be supplied and properly installed to remove the pump from the wet well. The internal discharge piping shall be completely pre-plumbed with pressure rated schedule 40 or 80 PVC pipe as indicated and extend 12" beyond the wet well and valve vault side wall for contractor connection to the force main piping. The pump(s) discharge piping shall have a check and ball valve installed on each pump discharge. The lift station shall also include a control panel and floats.

**PUMP(S):**  
 The pump furnished for this application shall be model 3LEV03 as manufactured by Liberty Pumps and shall be capable of handling residential and commercial sewage up to 3" solids.

**CONSTRUCTION:**  
 Each centrifugal pump shall be equal to the Certified 3LEV03-Series pumps as manufactured by Liberty Pumps, Bergen NY. The casting enclosing the motor shall be constructed of class 30 cast iron. The complete motor enclosure shall be designed and manufactured to meet stringent hazardous location guidelines with performance verified via flame propagation and hydrostatic testing. The motor housing shall be oil-filled to dissipate heat. Air-filled motors shall not be considered equal since they do not properly dissipate heat from the motor. Mating parts shall be machined and sealed with a Buna-N O-ring. All fasteners exposed to the process fluid shall be stainless steel. The motor shall be protected on the top side with a sealed cast iron cord entry plate, which is bolted to prevent water from entering through the cord. The motor shall be protected on the lower side with a dual mechanical seal arrangement and an oil-filled intermediate chamber. The upper seal shall be a unitized mechanical seal with silicon carbide faces. The lower seal shall be a two-piece mechanical seal with silicon carbide faces. The upper and lower bearings shall be sized to properly withstand radial and thrust loads produced throughout the full operating range of the pump.

**POWER CABLE:**  
 The submersible pump shall be supplied with 25, 35, or 50 feet of a multi-conductor cord of type SOOW. These type SOOW power cords carry a voltage rating of 600 V, a temperature rating of 90°C, have oil-resistant insulation, are water- and weather-resistant, UL listed, and CSA approved. The power cord shall be sized for the rated full load amps of the pump for continuous duty in accordance with the NEC®. A separate type SOOW control cord of equal length shall also exit the pump. The cord entries to the pump shall be protected via two sealing methods. The cords first pass through a Buna-N compression grommet that seals against the outer jacket of the cable. The Buna-N grommet also doubles as a strain relief for each individual conductor and then continues into a chamber that is filled with epoxy potting compound. The epoxy potting compound seals each individual conductor and protects against any intrusion of liquid into the motor cavity in the event of wicking.

**MOTOR:**  
 The motor shall be oil-filled, Class F insulated, and rated for continuous duty. Since air-filled motors are not capable of dissipating heat efficiently, they shall not be considered equal. Pumps requiring an auxiliary cooling means shall not be considered equal. The copper stator windings shall be insulated with moisture-resistant Class F insulation materials, rated for 155°C. The maximum continuous temperature of pumped liquids shall be 40°C. The winding operating temperature at rated horsepower shall be a maximum of 140°C @ 40°C ambient. Motor shall have thermal protector on 1-phase model 3LEV032 to cut power to motor in thermal overheat conditions.

**BEARINGS AND SHAFT:**  
 The shaft shall be supported by two ball bearings. The top bearing shall be a radial contact ball bearing and the lower bearing shall be an angular contact ball bearing designed to handle the radial and axial forces incurred by pumping/grinding. The lower bearing shall be positively retained by a threaded bearing retaining nut, which eliminates any axial movement or rotation of the outer bearing race. Both bearings shall be permanently lubricated by the oil that fills the motor housing. Pump designs requiring scheduled bearing maintenance shall not be considered equal. Pumps with single row lower bearings or sleeve bearings shall not be considered equal. The bearing system shall be sized to provide a minimum of 100,000 hours B10 bearing life throughout the operating range of the pump. Pumps that only provide a 50,000 hour B10 bearing life shall not be considered equal. The motor shaft shall be made of 303 stainless steel. The shaft shall be designed to withstand the maximum torque and radial loads present during start-up and normal operation. Shafts of carbon steel or chrome-plated shafts shall not be considered equal.

**SEALS:**  
 The pump shall have one shaft seal. Seal shall include stainless steel housings and Buna elastomers.

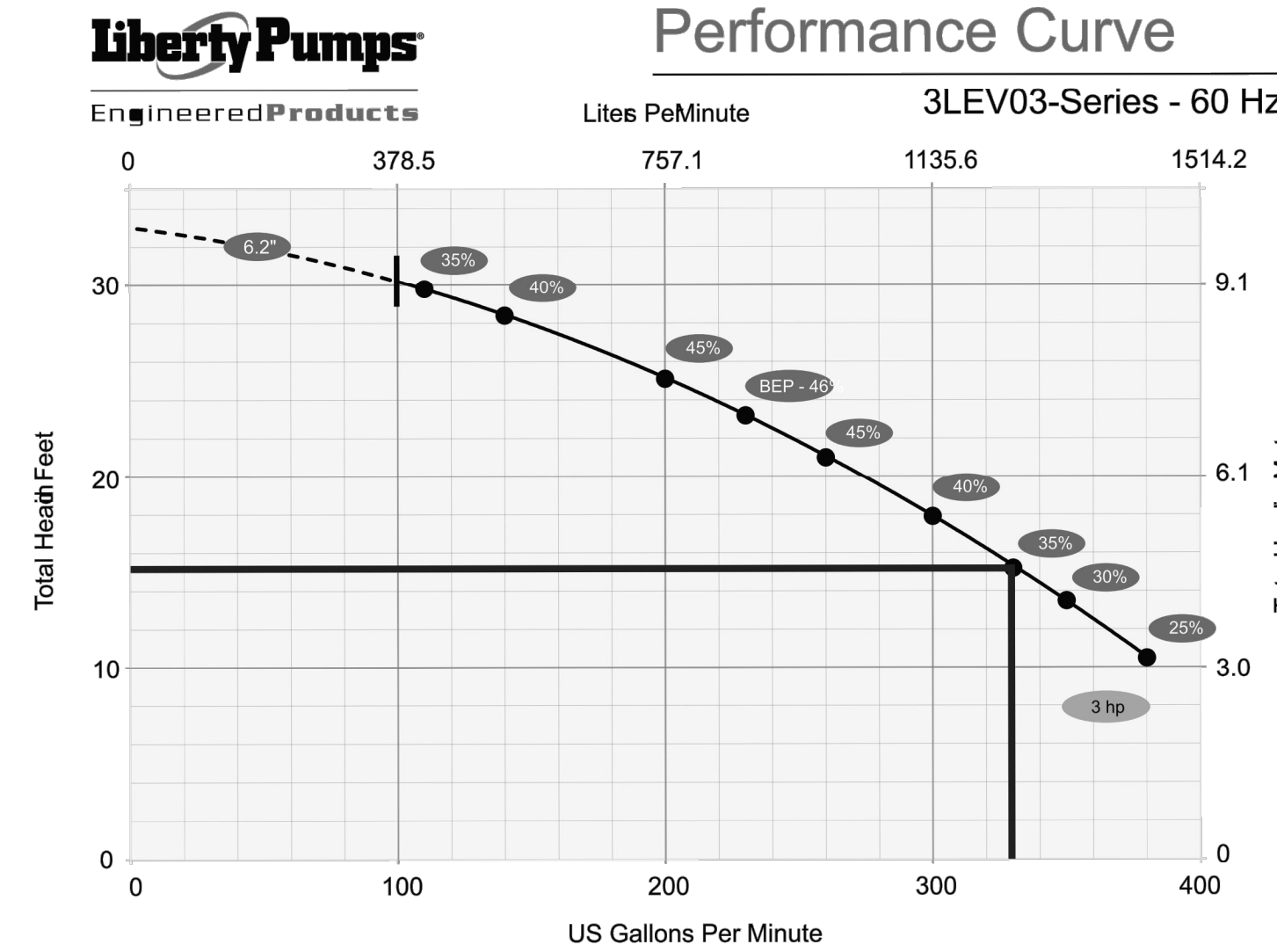
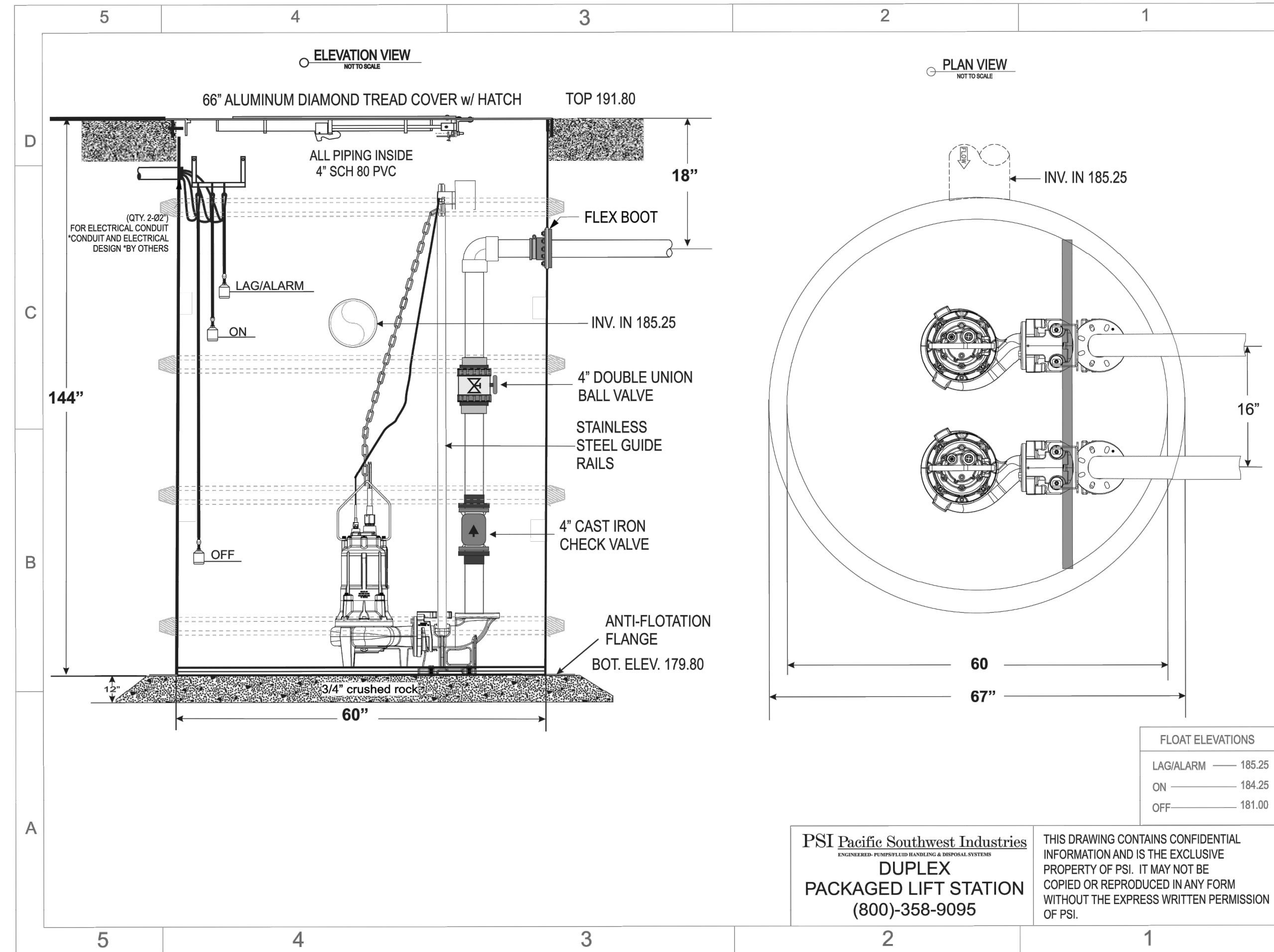
**IMPELLER:**  
 The impeller shall be ASTM class 30 cast iron, with optional silicon bronze material available. A vortex impeller design provides an efficient path through the impeller for solids to pass without getting caught or snagged. Impeller shrouds are designed to operate in close proximity to the pump volute casing to prevent solids from entering the seal area or recirculating back to the intake. The impeller shall be keyed and bolted onto the motor shaft.

**QUICK REMOVAL SYSTEM:**  
 The pumping unit(s) shall be equipped with quick removal system (QRS). The construction shall be such that the pump(s) will automatically connect to the discharge piping when lowered into place on the discharge connector. There shall be no need for personnel to enter the wet well to accomplish installation or removal of the pump(s). The pumping unit(s) shall be fitted with stainless steel lifting chain(s) of sufficient length and strength to permit the raising and lowering of the unit(s). The chain(s) shall be fastened at the top of the structure near the access opening. A sliding guide bracket shall be an integral part of the pumping unit and the pump casing shall have a machined connection with a bracket to connect with the discharge connector. Sealing of the pumping unit to the discharge connection shall be accomplished by a single linear downward motion of the pump with the entire weight of the pumping unit guided by a pawl, thereby wedging the pumping unit tightly against the discharge connector. No portion of the pump shall bear directly on the floor of the sump nor shall a rotary motion of the pump be required for sealing. All fasteners coming into contact with the pumpage shall be stainless steel. Two corrosion resistant guide pipes shall be furnished and installed for each pump to permit raising and lowering of the pump. Guide pipes shall be 1.25" inch (33 mm) in diameter and shall be of adequate length to extend from the lower guide holder to the upper guide bar bracket(s) mounted on the access frame.

**FIBERGLASS WET WELL:**  
 The fiberglass wet well with an anti-floatation flange shall have the proper diameter and depth below the lowest inlet to promote proper cycling while maintaining the rim at grade. The fiberglass wet well shall be manufactured using a process that is filament wound and or chopped spray. The wet well shall be constructed with an anti floatation flange. Lifting lugs shall be required for those wet wells 48 inches in diameter and larger for setting of the wet well. The laminate shall have a Barco hardness of at least 90% of the resin manufacturers minimum specified hardness for cured resin on both the interior and exterior surfaces. The minimum wall thickness of the wet well shall not be less than 1/4". Stainless steel studs will be encapsulated in the bottom of the wet well to allow the mounting of the quick removal system. The top rim flange will be a minimum of 2" wide to allow for the installation of the pedestrian rated aluminum cover to the rim flange or shall be rimless if the cover is specified for H2O off street locations. The wet well shall be provided with "unseal" fittings that can be installed in the field to insure proper elevation of the inlet, vent, and electrical on the side of the wet well. The wet well will house 2 - swing check valves, and 2 - shut off valves.

**COVER(S)**  
 The wet well cover shall always be gasketed and bolted to the rim flange of the fiber glass tank using 7/16" stainless steel hex head bolts unless the cover is to be in a H2O off street location. The type of material to be used for the cover shall be as indicated on this plan sheet.

**DUPLEX ALTERNATING CONTROL PANEL:**  
 The duplex control panel, as a minimum, shall include the appropriate enclosure type for the environment it is to be installed in and should include the following: Motor starters, motor circuit protectors or variable frequency drives (VFD), pump run indicator light(s), operation selector switch(es), high water alarm and light, silence switch, dry contact for alarm, numbered terminals for all incoming power, pump motor(s) and level controls. The control panel shall be UL listed 508 or 913.



**HAZEN-WILLIAMS EQUATION/HEAD LOSS IN WATER PIPE**  
 $(f) = 0.2083 (100/c)^{1.49} / d^{4.75}$

c=	140 HDPE / PVC
q=	330 GPM
dh=	4" SCH 80 = 3.83
4" FRICTION LOSS PER 100 FT =	7.50
c=	140 HDPE / PVC
q=	330 GPM
dh=	6" SCH 80 = 5.76
6" FRICTION LOSS PER 100 FT =	1.03
Velocity (ft/s)	4.07

STORM LIFT STATION PROFILE & CALCULATIONS					
4" SCH 80 = 4.03 SCH 80 = 3.83					
4" PVC PIPE (QTY)	12	x	1 FT	12 FT	
4" PVC 90 ELBOW (QTY)	1	x	11 FT	11 FT	
4" PVC 45 BEND (QTY)	0	x	5 FT	0 FT	
4" PVC TEE (QTY)	0	x	21 FT	0 FT	
4" BALL VALVE (QTY)	1	x	2.7 FT	2.7 FT	
4" CHECK VALVE (QTY)	1	x	22 FT	22 FT	
TOTAL EQUIVALENT LENGTH				47.7 FT	
FRICTION LOSS PER 100 FT 4" PVC	330 GPM	7.50 FT	PER 100 FT		
FRICTION LOSS 4"	47.7	/ 100	x	7.50 FT	3.58 FT
6" SCH 80 = 4.06 SCH 80 = 3.83					
6" PVC PIPE (QTY)	20	x	1 FT	20 FT	
6" PVC 90 ELBOW (QTY)	1	x	16 FT	16 FT	
6" PVC 45 BEND (QTY)	0	x	7.7 FT	0 FT	
6" PVC TEE (QTY)	0	x	33 FT	0 FT	
TOTAL EQUIVALENT LENGTH				56 FT	
FRICTION LOSS PER 100 FT 6" PVC	330 GPM	1.03 FT	PER 100 FT		
FRICTION LOSS 6"	56	/ 100	x	1.03 FT	0.57 FT
TOTAL DYNAMIC HEAD					
4" FRICTION LOSS				3.58 FT	
6" FRICTION LOSS				0.57 FT	
COMBINED 4" AND 6" FRICTION LOSS				3.95 FT	
STATIC HEAD				11.05 FT	
PERFORMANCE	330 GPM @	15.00	FT TDH THROUGH 6" PVC LINE		

**STORM WATER PUMP SYSTEM DETAILS**

NOTE: VERIFY ALL ELEVATIONS PRIOR TO FABRICATION. OTHERS TO VERIFY TO FABRICATION AND INSTALLATION. ALL PIPE OPENINGS AND SEALING SHALL BE COMPLETED IN FIELD BY OTHERS.

**PSI Pacific Southwest Industries**  
 ENGINEERED - PUMPS/LIQUID HANDLING & DISPOSAL SYSTEMS  
 1884 COLLIER AVE., LAKE ELSINORE, CA 92530 PH: 800-358-9095

No.	Date	Description

**LIFT STATION DETAILS**  
 McDONALD'S  
 2109 E. SANTA CLARA AVE  
 SANTA ANA, CA

Date: 04/19/23 Scale: NTS  
 Drawn By: DM Sheet No. 1 OF 1  
 Checked By:

**LSD-1**

PSI DUPLEX PACKAGED LIFT STATION  
 N.T.S.

4

**Underground Service Alert**  
 of Southern California

CALL: TOLL FREE 1-800-422-4133

TWO WORKING DAYS BEFORE YOU DIG

**NOTICE TO CONTRACTOR**  
 PURSUANT TO ASSEMBLY BILL 3019, NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS AN INQUIRY I.D. NUMBER FROM "UNDERGROUND SERVICE ALERT" (1-800-422-4133) AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.

REVISIONS			
NUMBER	DATE	INITIALS	DESCRIPTION

REFERENCES			
BENCHMARK NO.		ELEV.	
3C-26-06		173.744'	NAVD88
THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET.			
THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14566, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.			
CONSTRUCTION COMPLETED:			

**REGISTERED PROFESSIONAL ENGINEER**  
 CIVIL  
 STATE OF CALIFORNIA  
 RCE NO. 90371

PREPARED UNDER THE SUPERVISION OF:  
 HANNAH LUEVANO, P.E.  
 KIMLEY-HORN  
 1100 TOWN & COUNTRY RD.  
 SUITE 700  
 (213) 261-4040

ENGINEER OF RECORD  
 RCE NO.: 90371

DATE: 7/6/2023

**PROPOSED DRIVE-THRU RESTAURANT**  
 2109 E SANTA CLARA AVENUE  
 SANTA ANA, CA 92705  
**PUBLIC WORKS AGENCY**  
 CITY OF SANTA ANA

SHEET NO. 5 OF 5

**WQMP DETAILS**

PROJECT NO. Y1-NNNN-PROJECT TITLE PROJECT LIMITS

# **Attachment C**

## **Grading and Detail Sheets**

# PROJECT TEAM

**DEVELOPER**  
CHRISTINE CHO  
MCDONALDS USA, LLC  
18565 JAMBOREE ROAD, STE. 850  
IRVINE, CA 92612  
(657) 259-2912  
CHRISTIN.CHO@US.MCD.COM

**SURVEYOR**  
JOHN F. BRANHAM  
ATLAS GEOSPATIAL  
2191 EL CAMINO REAL, SUITE 120  
OCEANSIDE, CA  
(888) 364-1973

**ARCHITECT**  
JESSICA STEINER, AIA, LEED AP  
BICKEL GROUP ARCHITECTURE  
3600 BIRCH STREET, SUITE 120  
NEWPORT BEACH, CA 92660  
(949) 757-0411  
JSTEINER@BICKELGRP.COM

**CIVIL ENGINEER**  
HANNAH LUEVANO, PE  
KIMLEY-HORN AND ASSOCIATES, INC.  
1100 TOWN AND COUNTRY ROAD, SUITE 700  
ORANGE, CA 92668  
(714) 786-6338  
HANNAH.LUEVANO@KIMLEY-HORN.COM

**GEOTECHNICAL**  
NADIM SUNNA, MS, PE, GE  
UNIVERSAL ENGINEERING SCIENCES  
16 TECHNOLOGY DRIVE, SUITE 139  
IRVINE, CA 92618  
(949) 537-3222

# UTILITY PURVEYORS

**WATER & ELECTRIC**  
CITY OF SANTA ANA:  
WATER SERVICES  
20 CIVIC CENTER PLAZA  
SANTA ANA, CA 92701  
(714) 647-5454

**ELECTRICITY**  
SOCAL EDISON:  
1325 S GRAND AVE  
SANTA ANA, CA 92705  
(800) 655-4555

**GAS**  
SOUTHERN CALIFORNIA GAS COMPANY  
738 HARBOR BLVD  
SANTA ANA, CA 92704  
(800) 427-2200

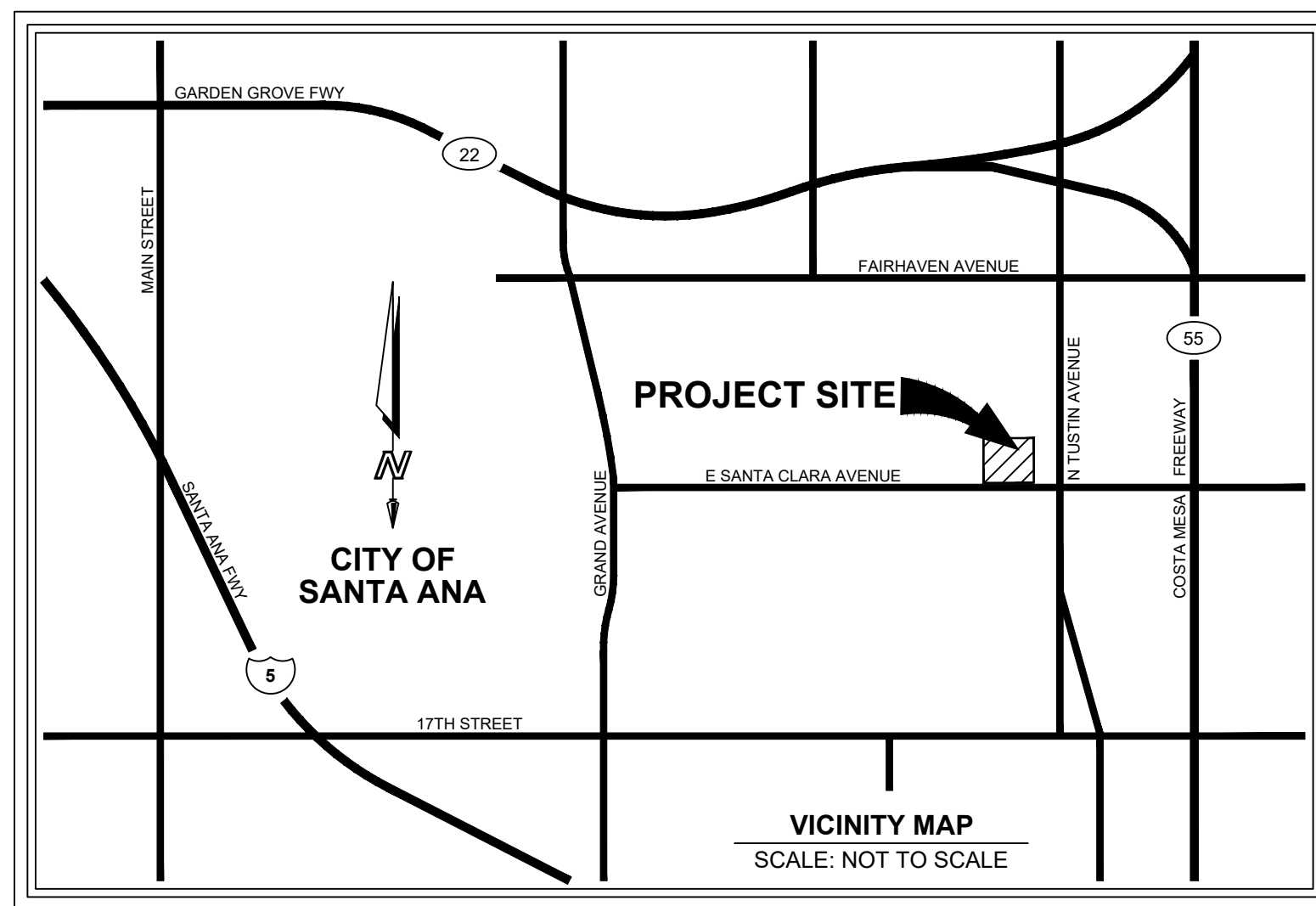
# ON-SITE IMPROVEMENT PLANS

FOR



# McDONALD'S USA, LLC

2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705



## SITE INFORMATION

**SITE ADDRESS:** 2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705  
**PROJECT DESCRIPTION:** DEMOLITION OF EXISTING BUILDINGS AND NEW CONSTRUCTION OF A MCDONALD'S DRIVE THRU RESTAURANT AND PARKING LOT.  
**ZONING DISTRICT:** A1-GENERAL AGRICULTURAL (EXISTING)  
C5-ARTERIAL COMMERCIAL (PROPOSED)  
**LAND USE:** GENERAL COMMERCIAL  
**EXISTING USE:** RESIDENTIAL  
**PARKING SPACES:** 32

## GEOTECHNICAL REPORT

THE MCDONALD'S RESTAURANT (4-5088) GEOTECHNICAL ENGINEERING REPORT DATED NOVEMBER 4, 2021 PREPARED BY UNIVERSAL ENGINEERING SCIENCES, REPORT 4230.2100035.0000 AND ALL ADDENDA SHALL BE CONSIDERED PART OF THESE CONSTRUCTION DOCUMENTS.

## EARTHWORK NOTES

THE EARTHWORK QUANTITIES ABOVE ARE FOR PERMIT PURPOSES ONLY. THE CONTRACTOR IS NOT AUTHORIZED TO USE THE ESTIMATES HEREIN FOR BIDDING AND CONSTRUCTION PURPOSES WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD. NO REPRESENTATIONS OF SUCH QUANTITIES OR A BALANCED SITE CONDITION ARE MADE BY THE ENGINEER OF RECORD.

UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE QUANTITIES ARE APPROXIMATE, IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE SURVEY. PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S) AS FINISHED GROUND, FINISHED SURFACE, AND FINISHED FLOOR ELEVATIONS.

UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE ABOVE GRADING QUANTITIES HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, SUBSIDENCE, OVER-EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS. NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, STORMWATER QUALITY MEDIA SECTIONS, UTILITY PIPES, TRENCHING AND BEDDING MATERIALS, BUILDING OR WALL FOOTINGS, BUILDING SLAB THICKNESSES AND UNDERLYING BASE OR SAND LAYERS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE NEW PAVEMENTS, ETC.

ANY OVEREXCAVATION AND RECOMPACTION DEPTHS AND VOLUMES, SHRINKAGE FACTORS, PAVEMENT SECTIONS, BUILDING PAD SECTIONS, AND BULKING FACTORS ARE BASED ON A SEPARATE GEOTECHNICAL REPORT. ANY BUILDING SLAB THICKNESSES ARE BASED ON THE SEPARATE BUILDING STRUCTURAL ENGINEERING PLANS. ANY UTILITY, STORMWATER MITIGATION, AND FOOTING SPOILS ARE BASED ON ESTIMATES PROVIDED BY THE OWNER OR CONTRACTOR.

- 22. EARTHWORK VOLUMES:  
CUT 172 CUBIC YARDS  
FILL 377 CUBIC YARDS  
NET 205 CUBIC YARDS
- 23. IF THE NET VOLUMES EXCEED 500 CUBIC YARDS, THE CONTRACTOR MUST SUBMIT A HAUL TRUCK ROUTE TO THE CITY FOR APPROVAL. HAUL ROUTE SHALL INCLUDE THE LOCATION OF BORROW AND/OR DISPERSAL SITE, ALL STREETS INCLUDED IN THE ROUTE, THE PROPOSED STAGING AREA AND THE MAXIMUM GROSS WEIGHT OF THE TRUCKS WHEN LOADED.
- 24. SUBMIT AN 8 1/2" X 11" HAUL ROUTE MAP OF APPROPRIATE SCALE WHICH INDICATES THE LOCATION OF THE PROJECT SITE, SHOWING STREETS AND DIRECTION OF HAULING UP TO AND INCLUDING THE END OF THE ROUTE.
- 25. PURSUANT TO ASSEMBLY BILL 3019, NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS AN INQUIRY I.D. NUMBER FROM "UNDERGROUND SERVICE ALERT" (1-800-422-4133) AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.
- 26. SEPARATE PERMITS MUST BE OBTAINED FROM THE CITY BUILDING AND SAFETY DIVISION FOR THE CONSTRUCTION OF RETAINING WALLS, LIGHT POLES, TRASH ENCLOSURES, ON-SITE PLUMBING AND ALL BUILDING STRUCTURES.
- 27. ALL FONTS ON PLANS SHOULD BE A MINIMUM OF 0.1".

# LEGEND

Legend symbols and descriptions:

- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT / SETBACK LINE
- APPROXIMATE CIVIL LIMIT OF WORK
- GRADE BREAK LINE
- RIDGE LINE
- PROPOSED SANITARY SEWER PIPE
- PROPOSED STORM DRAIN PIPE
- PROPOSED DOMESTIC WATER PIPE
- PROPOSED FIRE WATER PIPE
- PROPOSED GAS LINE
- PROPOSED ELECTRICAL CONDUIT
- PROPOSED TELECOMMUNICATION CONDUIT
- FLOW LINE
- POINT OF CONNECTION (@ BLDG)
- POINT OF CONNECTION (TO EXISTING)
- PROPOSED SEWER CLEANOUT
- PROPOSED BACKFLOW PREVENTOR
- PROPOSED WATER LINE BEND WITH THRUST BLOCK
- PROPOSED SPOT GRADE
- EXISTING SPOT GRADE

Proposed Flow (Direction and Slope): 2.2%

Proposed Landscape Area

Heavy Duty Concrete Pavement

Standard Duty Concrete Pavement

Standard Duty Asphalt Pavement

Heavy Duty Asphalt Pavement

Detectable Warning (Truncated Domes)

Bioretention / Biofiltration Area

# ABBREVIATIONS

AB	- AGGREGATE BASE
AC	- ASPHALT
BC	- BACK OF CURB
BS	- BOTTOM OF STEP
BLDG	- BUILDING
BW	- BACK OF WALK
CB	- CATCH BASIN
CF	- CURB FACE
C/L	- CENTERLINE
CONC.	- CONCRETE
CONST.	- CONSTRUCT, CONSTRUCTION
DF	- DEEPENED FOOTING
DI	- DRAIN INLET
DW	- DOMESTIC WATER
E	- EAST
EG	- EDGE OF GUTTER
ELEC	- ELECTRIC
EP	- EDGE OF PAVEMENT
FF	- FINISHED FLOOR
FG	- FINISHED GRADE
FL	- FLOW LINE
FS	- FINISHED SURFACE
FW	- FIRE WATER
G	- GAS
GB	- GRADE BREAK
HP	- HIGH POINT
INV	- INVERT
IRR	- IRRIGATION WATER
JUN	- JUNCTION STRUCTURE
LP	- LOW POINT
MH	- MANHOLE
N	- NORTH
PCC	- PORTLAND CEMENT CONCRETE
P/L	- PROPERTY LINE
PUE	- PUBLIC UTILITY EASEMENT
PIV	- POST INDICATOR VALVE
PVC	- POLYVINYL CHLORIDE
R	- RADIUS
RD	- ROOF DRAIN
RW	- RECLAIMED WATER
R/W	- RIGHT-OF-WAY
S	- SEWER OR SOUTH
SD	- STORM DRAIN
STA	- STATION
SS	- SANITARY SEWER
SSPWC	- STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION
SW	- SIDE WALK
T	- TELEPHONE
TC	- TOP OF CURB
W	- WATER OR WEST
xxx.xx	- PROPOSED ELEVATION
(xxx.xx)	- EXISTING ELEVATION

## BENCHMARK NOTE

THE OFF-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, BENCHMARK USED IS ORANGE COUNTY PUBLIC WORKS SURVEY SECTION, DESIGNATION SA-268-70. BEING A FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "SA-268-70", SET IN THE WESTERLY END OF A CIRCULAR CATCH BASIN. MONUMENT IS LOCATED IN THE NORTHWEST CORNER OF THE INTERSECTION OF TUSTIN AVENUE AND SANTA CLARA AVENUE, 77.5 FT WESTERLY OF THE CENTERLINE OF TUSTIN AVENUE AND 33.5 FT NORTHERLY OF THE CENTERLINE OF SANTA CLARA AVENUE. MONUMENT IS SET LEVEL WITH THE SIDEWALK. ELEVATION 190.612 FEET.

THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION=193.65 FEET.

## BASIS OF BEARINGS NOTE

BEING THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14568, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.

## LEGAL DESCRIPTION PER TITLE REPORT

PARCEL A: APN: 396-261-30, APN: 396-261-31, APN: 396-261-32 THAT PORTION OF LOT 8 IN BLOCK A OF THE A. B. CHAPMAN TRACT, IN THE CITY OF SANTA ANA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS SHOWN ON A MAP RECORDED IN BOOK 102, PAGE 15 OF MISCELLANEOUS MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

PARCEL 2, IN THE CITY OF SANTA ANA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 28, PAGE 46 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL B: APN: 396-261-26, APN: 396-261-33 THROUGH APN: 396-261-38 PARCELS 1, 2 AND 3 AS SHOWN ON A MAP FILED IN BOOK 12, PAGE 16 OF PARCEL MAPS, IN THE CITY OF SANTA ANA, OFFICE OF THE COUNTY RECORDER OF ORANGE COUNTY, CALIFORNIA.

## CITY GRADING NOTES

- ALL GRADING SHALL COMPLY WITH THE LATEST CBC CHAPTERS 18 AND 33, AND APPENDIX J AND THE SANTA ANA MUNICIPAL CODE. A CITY GRADING PERMIT IS REQUIRED FOR GRADING.
  - GRADING SHALL NOT BE STARTED WITHOUT FIRST NOTIFYING THE CITY GRADING INSPECTOR. A PRE-GRADING MEETING ON THE SITE IS REQUIRED BEFORE STARTING OF GRADING WITH THE FOLLOWING PEOPLE PRESENT: GRADING CONTRACTOR, DESIGN CIVIL ENGINEER, GEOTECHNICAL ENGINEER, GRADING INSPECTOR AND WHEN REQUIRED, THE ARCHAEOLOGIST AND PALEONTOLOGIST. THE REQUIRED INSPECTIONS FOR GRADING WILL BE EXPLAINED AT THIS MEETING.
  - AN APPROVED COPY OF THE GRADING PLANS SHALL BE ON THE PERMITTED SITE WHILE WORK IS IN PROGRESS.
  - THE DESIGN CIVIL ENGINEER SHALL BE AVAILABLE DURING THE GRADING TO VERIFY COMPLIANCE WITH THE PLANS, SPECIFICATIONS, CODE AND ANY SPECIAL CONDITIONS OF THE PERMIT WITHIN HIS PURVIEW.
  - THE GEOTECHNICAL ENGINEER SHALL PERFORM PERIODIC INSPECTIONS AND SUBMIT A COMPLETE REPORT AND MAP UPON COMPLETION OF THE ROUGH GRADING. THE COMPACTION REPORT AND APPROVAL FROM THE GEOTECHNICAL ENGINEER SHALL INDICATE THE TYPE OF FIELD TESTING PERFORMED. EACH TEST SHALL BE IDENTIFIED WITH THE METHOD OF OBTAINING THE IN-PLACE DENSITY, WHETHER SAND CONE OR DRIVE RING, AND SHALL BE SO NOTED FOR EACH TEST. SUFFICIENT MAXIMUM DENSITY DETERMINATIONS SHALL BE PERFORMED TO VERIFY THE ACCURACY OF THE MAXIMUM DENSITY CURVES BY THE FIELD TECHNICIAN.
  - CUT AND FILL SLOPES SHALL BE NO STEEPER THAN 2 FOOT HORIZONTAL TO 1 FOOT VERTICAL (2:1) EXCEPT WHERE SPECIFICALLY APPROVED OTHERWISE.
  - FILLS SHALL BE COMPACTED THROUGHOUT TO A MINIMUM OF 90% RELATIVE DENSITY. AGGREGATE BASE FOR ASPHALTIC AREAS SHALL BE COMPACTED TO MINIMUM OF 95% RELATIVE DENSITY. MAXIMUM DENSITY SHALL BE DETERMINED BY UNIFORM BUILDING CODE STANDARD NO. 70-1 OR APPROVED EQUIVALENT, AND FIELD DENSITY BY UNIFORM CODE STANDARD NO. 70-2 OR APPROVED EQUIVALENT.
  - THE CONTRACTOR SHALL NOT CREATE ANY TRENCH OR EXCAVATION 5- FEET OR MORE WITHOUT THE NECESSARY PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY.
  - ALL CUT SLOPES SHALL BE INVESTIGATED BOTH DURING AND AFTER GRADING BY THE GEOTECHNICAL ENGINEER TO DETERMINE IF ANY SLOPE STABILITY PROBLEM EXISTS. SHOULD EXCAVATION DISCLOSE ANY GEOLOGICAL HAZARDS OR POTENTIAL GEOLOGICAL HAZARDS, THE GEOTECHNICAL ENGINEER SHALL SUBMIT A RECOMMENDED TREATMENT TO THE CITY ENGINEER FOR APPROVAL.
  - THE PERMITTEE IS RESPONSIBLE FOR DUST CONTROL MEASURES. WATER ACTIVE SITES AT LEAST TWICE DAILY.
  - THE LOCATING AND PROTECTION OF ALL EXISTING UTILITIES IS THE RESPONSIBILITY OF THE PERMITTEE.
  - GRADING OPERATIONS, INCLUDING MAINTENANCE OF EQUIPMENT, WITHIN ONE-HALF (1/2) MILE OF A STRUCTURE OF HUMAN OCCUPANCY SHALL NOT BE CONDUCTED BETWEEN THE HOURS OF 8:00 P.M. AND 7:00 A.M. ON WEEKDAYS, INCLUDING SATURDAY, OR ANY TIME ON SUNDAY OR A FEDERAL HOLIDAY. (CITY OF SANTA ANA MUNICIPAL CODE SECTION 18-314)
  - THE PERMITTEE SHALL GIVE REASONABLE NOTICE TO THE OWNER OF ADJOINING LANDS AND BUILDINGS PRIOR TO BEGINNING EXCAVATIONS, WHICH MAY AFFECT THE LATERAL AND SUBJACENT SUPPORT OF THE ADJOINING PROPERTY. THE NOTICE SHALL STATE THE INTENDED DEPTH OF EXCAVATION AND WHEN EXCAVATION COMMENCES. THE ADJOINING OWNER SHALL BE ALLOWED AT LEAST 30 DAYS AND
- REASONABLE ACCESS ON THE PERMITTED PROPERTY TO PROTECT HIS STRUCTURE, IF HE SO DESIRES, UNLESS OTHERWISE PROTECTED BY LAW.
  - ALL EXISTING DRAINAGE COURSES THROUGH THE SITE SHALL REMAIN OPEN TO HANDLE THE STORM WATER; HOWEVER, IN ANY CASE, THE PERMITTEE SHALL BE HELD LIABLE FOR ANY DAMAGE DUE TO OBSTRUCTING NATURAL DRAINAGE PATTERNS.
  - APPROVED EROSION PROTECTION DEVICES SHALL BE PROVIDED AND MAINTAINED DURING THE RAINY SEASON AND SHALL BE IN PLACE AT THE END OF EACH DAYS WORK. PROPER EROSION CONTROL MEASURES MUST BE SHOWN ON THE PLANS.
  - CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITES. DISCHARGES OF MATERIAL OTHER THAN STORM WATER 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 117 AND 302.
- POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC FLUIDS; BATTERY FLUIDS; FERTILIZERS; VEHICLES/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DREGREASING; AND SUPERCHLORINATED POTABLE WATER LINE FLUSHINGS.
- DURING CONSTRUCTION, DISPOSAL OF SUCH MATERIALS SHOULD OCCUR IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORM WATER RUN-OFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- 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.
  - ALL DIRT, SAND, MUD, OR DEBRIS DEPOSITED OR SPILLED UPON PUBLIC STREETS DURING ANY GRADING, HAULING, OR EXPORT OPERATIONS SHALL BE IMMEDIATELY CLEANED UP BY THE DEVELOPER, HIS CONTRACTOR, SUBCONTRACTORS, OR AGENTS TO THE SATISFACTION OF THE CITY ENGINEER. FAILURE TO DO SO WILL BE CAUSE FOR STOPPING ALL SUCH GRADING, HAULING, OR EXPORT WORK BY THE CITY UNTIL SUCH TIME AS THE STREETS ARE CLEANED.
  - ALL TRUCKS HAULING DIRT, SAND, OIL, OR OTHER LOOSE MATERIALS ARE TO BE COVERED OR SHOULD MAINTAIN A LEAST TWO FEET OF FREEBOARD IN ACCORDANCE WITH THE REQUIREMENTS OF CVC SECTION 23114.
  - CONTRACTOR IS RESPONSIBLE FOR THE REPAIR OF ALL DAMAGES TO PUBLIC PROPERTIES THAT ARE CAUSED BY THE WORK ON-SITE. REPAIR MUST BE COMPLETED TO THE SATISFACTION OF THE CITY ENGINEER.
  - MINIMUM ASPHALT PAVEMENT SECTIONS SHALL BE:
    - 3"AC/6"AB - PARKING AISLES
    - 4"AC/8"AB - DRIVES [COMMERCIAL]
    - 4"AC/12"AB - DRIVES [INDUSTRIAL]
    - 3"AC OVER 4"AB - PARKING STALLS [MULTI-FAMILY]
    - 3"AC OVER 8"AB - DRIVE AISLES [MULTI-FAMILY]

## Sheet List Table

Sheet Number	Sheet Title
C1.0	CIVIL COVER SHEET
C1.1	EXISTING CONDITIONS
C1.2	EXISTING CONDITIONS
C2.0	PRIVATE GENERAL NOTES
C2.1	PUBLIC GENERAL NOTES
C3.0	EROSION CONTROL PLAN
C3.1	EROSION CONTROL DETAILS
C4.0	DEMOLITION PLAN
C5.0	SITE KEYNOTE PLAN
C5.1	HORIZONTAL CONTROL PLAN
C6.0	GRADING AND DRAINAGE PLAN
C7.0	UTILITY PLAN
C8.0	CONSTRUCTION DETAILS
C8.1	CONSTRUCTION DETAILS
C8.2	CONSTRUCTION DETAILS
C8.3	CONSTRUCTION DETAILS

## CITY EROSION AND SEDIMENT CONTROL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE EROSION CONTROL PLANS, THE PROJECT'S STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AND THE RECOMMENDATIONS OF SOILS REPORT.
- EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHENEVER THE DAILY RAINFALL PROBABILITY EXCEEDS 40%.
- EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY EROSION CONTROL DEVICES AT ALL TIME.
- CONTROLS SHALL BE SET UP AND MAINTAINED AS CONSTRUCTION PROCEEDS. ADJUSTMENTS TO THE EROSION CONTROL PLANS ARE ALLOWABLE AS REQUIRED AND APPROVED BY CITY.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL IMPLEMENT STRUCTURAL AND NONSTRUCTURAL BEST MANAGEMENT PRACTICES (BMPs) IN CONFORMANCE WITH THE GUIDELINES OF THE CALIFORNIA STORM WATER BMP HANDBOOKS.
- AFTER A RAINSTORM, ALL SEDIMENT AND DEBRIS SHALL BE REMOVED FROM STREETS, BERMS AND DESILTING BASINS. ANY GRADED SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING A RAINSTORM SHALL BE IMMEDIATELY REPAIRED.
- THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATED A HAZARDOUS CONDITION.

FILE NO.:

R-

### REVISIONS

### REFERENCES

### ENGINEERS SEAL



### PREPARED UNDER THE SUPERVISION OF:

HANNAH LUEVANO  
SENIOR CIVIL ENGINEER RCE NO.: 90371  
DESIGNED: HS DRAWN: MH CHECKED: HS

### DATE

6/29/2023

### REVIEWED FOR CONSTRUCTABILITY AND RECOMMENDED FOR CONSTRUCTION:

JASON GABRIEL  
PRINCIPAL CIVIL ENGINEER RCE NO.: 62968

### DATE

XX/YYYY

## PROPOSED DRIVE-THRU RESTAURANT

2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705

**PUBLIC WORKS AGENCY**  
CITY OF SANTA ANA

CIVIL COVER SHEET

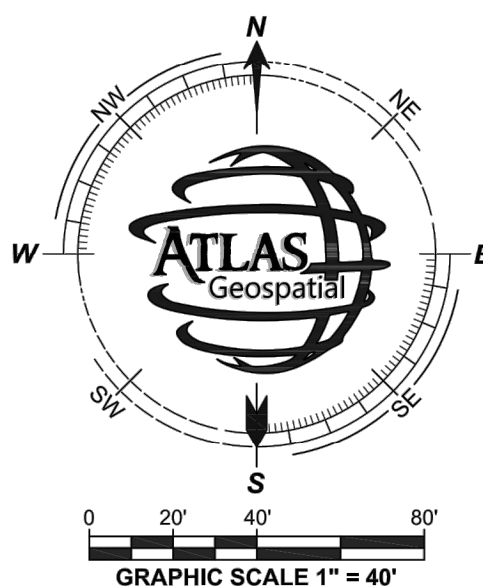
SHEET NO.

C1.0

PROJECT NO. YY-NNNN-PROJECT TITLE PROJECT LIMITS

# ALTANSPS LAND TITLE SURVEY

OF PARCELS 1, 2 AND 3 AS SHOWN ON A MAP FILED IN BOOK 12, PAGE 16 OF PARCEL MAPS, AND PARCEL 2, AS PER MAP RECORDED IN BOOK 28, PAGE 46 OF PARCEL MAPS, BOTH SITUATE IN THE CITY OF SANTA ANA, OFFICE OF THE COUNTY RECORDER OF ORANGE COUNTY, STATE OF CALIFORNIA.



### RECORD LEGEND

- XX INDICATES A DIMENSION THAT IS MEASURED OR CALCULATED FROM MEASURED DISTANCES.
- R1 INDICATES A DIMENSION PER PARCEL MAP RECORDED IN BK 12, PG 16 OF PARCEL MAPS.
- R2 INDICATES A DIMENSION PER PARCEL MAP RECORDED IN BK 28, PG 46 OF PARCEL MAPS.
- R3 INDICATES A DIMENSION PER TRACT MAP NO. 14568, RECORDED IN BK 695, PGS 46-47 OF MISC MAPS.

### PARCEL INFORMATION

**PARCEL A**  
BEING PARCEL 2 AS RECORDED IN BK. 28, PG. 46 OF PARCEL MAPS  
APN: 396-261-30, 31 AND 32  
SQ. FT. = 26,369,828 / 0.605 ACRES  
ZONING: C5 (COMMUNITY COMMERCIAL)

**PARCEL B**  
BEING PARCELS 1, 2 AND 3 AS RECORDED IN BK. 12, PG. 16 OF PARCEL MAPS  
APN: 396-261-26, 33, 34, 35, 36, 37 AND 38  
SQ. FT. = 203,947,274 / 4.662 ACRES  
ZONING: C5 (COMMUNITY COMMERCIAL) & A1 (GENERAL AGRICULTURAL)

**MCDONALDS LEASE**  
BEING PARCELS 2 AND 3 AS RECORDED IN BK. 12, PG. 16 OF PARCEL MAPS  
APN: 396-261-26, 33 AND 38  
SQ. FT. = 35,398,396 / 0.813 ACRES  
ZONING: A1 (GENERAL AGRICULTURAL)

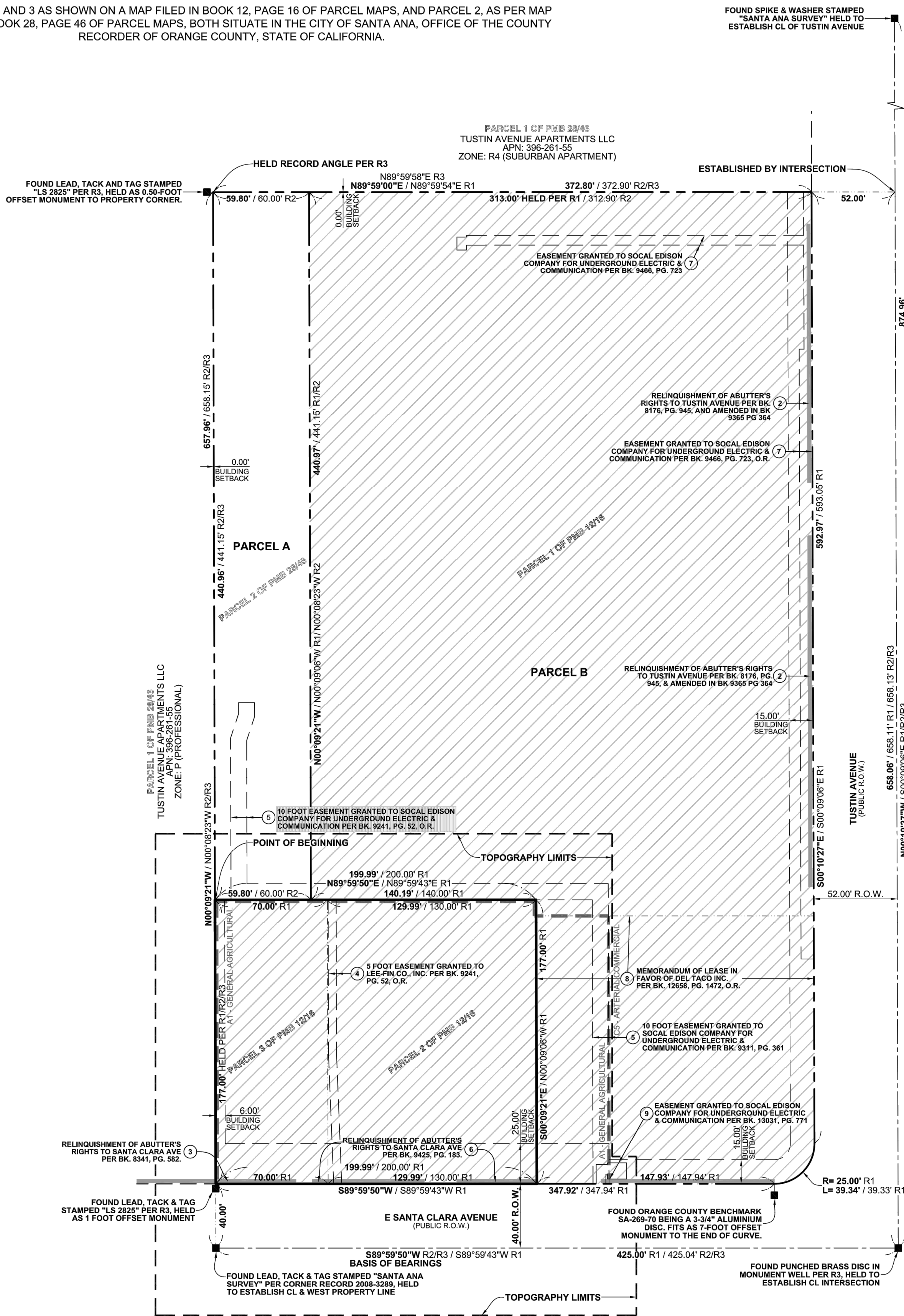
### LEGEND

- NOTE: ALL SYMBOLS OR LINETYPES SHOWN BELOW MAY NOT BE INCORPORATED ON THIS DRAWING.
- PROPERTY BOUNDARY LINE
  - PROPOSED LEASE AREA
  - CENTERLINE
  - INDETERMINATE BOUNDARY LINE
  - EASEMENT LINE
  - INDICATES RESTRICTED ACCESS
  - ZONING BOUNDARY
  - ASSESSORS PARCEL NUMBER
  - RIGHT OF WAY
  - PROPERTY LINE
  - CENTER LINE
  - FOUND MONUMENT AS DESCRIBED
  - SET 5" I.P. W/ PLASTIC CAP TAG T.S. 8645'
  - EXISTING BUILDING WITH OVERHANG
  - PARCEL B

### SURVEYOR'S METES AND BOUNDS LEGAL DESCRIPTION

**MCDONALDS LEASE**  
BEING PARCELS 2 AND 3 AS SHOWN ON A MAP FILED IN BOOK 12, PAGE 16 OF PARCEL MAPS, IN THE CITY OF SANTA ANA, OFFICE OF THE COUNTY RECORDER OF ORANGE COUNTY, STATE OF CALIFORNIA AND MORE PARTICULARLY DESCRIBED AS FOLLOWS:

**BEGINNING** AT THE SOUTHWEST CORNER OF PARCEL 2 OF PARCEL MAP RECORDED IN BOOK 28, PAGE 46 OF PARCEL MAPS, IN THE OFFICE OF SAID ORANGE COUNTY RECORDER; THENCE N89°59'50"E A DISTANCE OF 199.99 FEET TO A WEST LINE OF PARCEL 1 OF SAID PARCEL MAP RECORDED IN BOOK 12, PAGE 16 OF PARCEL MAPS; THENCE ALONG SAID WEST LINE, S93°02'21"E A DISTANCE OF 177.00 FEET TO THE NORTH RIGHT OF WAY LINE OF EAST SANTA CLARA AVENUE, BEING 40.00 FEET WIDE IN HALF WIDTH; THENCE ALONG SAID NORTH RIGHT OF WAY LINE, S89°59'50"W A DISTANCE OF 199.99 FEET TO AN EAST LINE OF PARCEL 1 OF SAID PARCEL MAP RECORDED IN BOOK 28, PAGE 46 OF PARCEL MAPS; THENCE ALONG SAID EAST LINE, N00°09'21"W A DISTANCE OF 177.00 FEET TO THE POINT OF BEGINNING.



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DATE	REVISIONS	BY

**ALTANSPS LAND TITLE SURVEY**  
**FOR, MCDONALDS, 004-5088**

2101/2109 EAST SANTA CLARA AVENUE,  
CITY OF SANTA ANA, COUNTY OF ORANGE  
STATE OF CALIFORNIA

PROJECT NUMBER: 004-5088  
DWG NAME: 21-111 SANTA ANA MCD ALTA  
PREPARED BY: AGAM DATE: 11.16.2021  
CHECKED BY: JAA/JWW DATE: 11.16.2021

REVISION SHEET  
0 OF 3

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED

REFERENCES
BENCHMARK NO.: 3C-26-06 ELEV.: 173.744' NAVD88
THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET.
THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14568, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.
CONSTRUCTION COMPLETED:

ENGINEERS SEAL	DATE
<p>PREPARED UNDER THE SUPERVISION OF:</p> <p>HANNAH LUEVANO SENIOR CIVIL ENGINEER RCE NO.: 90371 DESIGNED: HS DRAWN: MH CHECKED: HS</p> <p>REVIEWED FOR CONSTRUCTABILITY AND RECOMMENDED FOR CONSTRUCTION:</p> <p>JASON GABRIEL PRINCIPAL CIVIL ENGINEER RCE NO.: 62968</p>	<p>6/29/2023</p> <p>xx/yyyy</p>

**PROPOSED DRIVE-THRU RESTAURANT**  
2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705

**PUBLIC WORKS AGENCY**  
CITY OF SANTA ANA

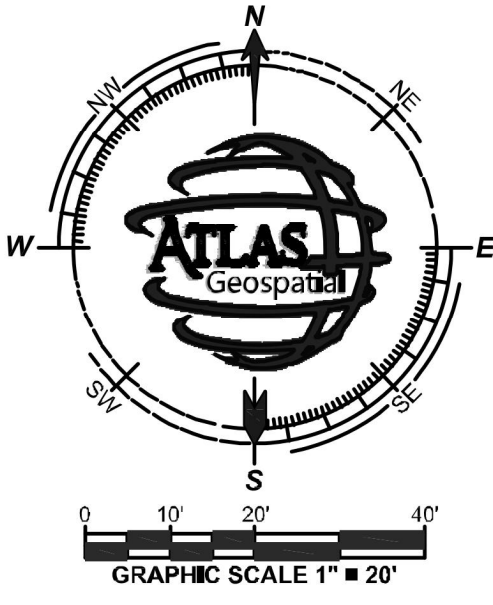
EXISTING CONDITIONS

SHEET NO. C1.1

PROJECT NO. YY-NNNN: PROJECT TITLE PROJECT LIMITS

# ALTA/NSPS LAND TITLE SURVEY

OF PARCELS 1, 2 AND 3 AS SHOWN ON A MAP FILED IN BOOK 12, PAGE 16 OF PARCEL MAPS, AND PARCEL 2, AS PER MAP RECORDED IN BOOK 28, PAGE 46 OF PARCEL MAPS, BOTH SITUATE IN THE CITY OF SANTA ANA, OFFICE OF THE COUNTY RECORDER OF ORANGE COUNTY, STATE OF CALIFORNIA.

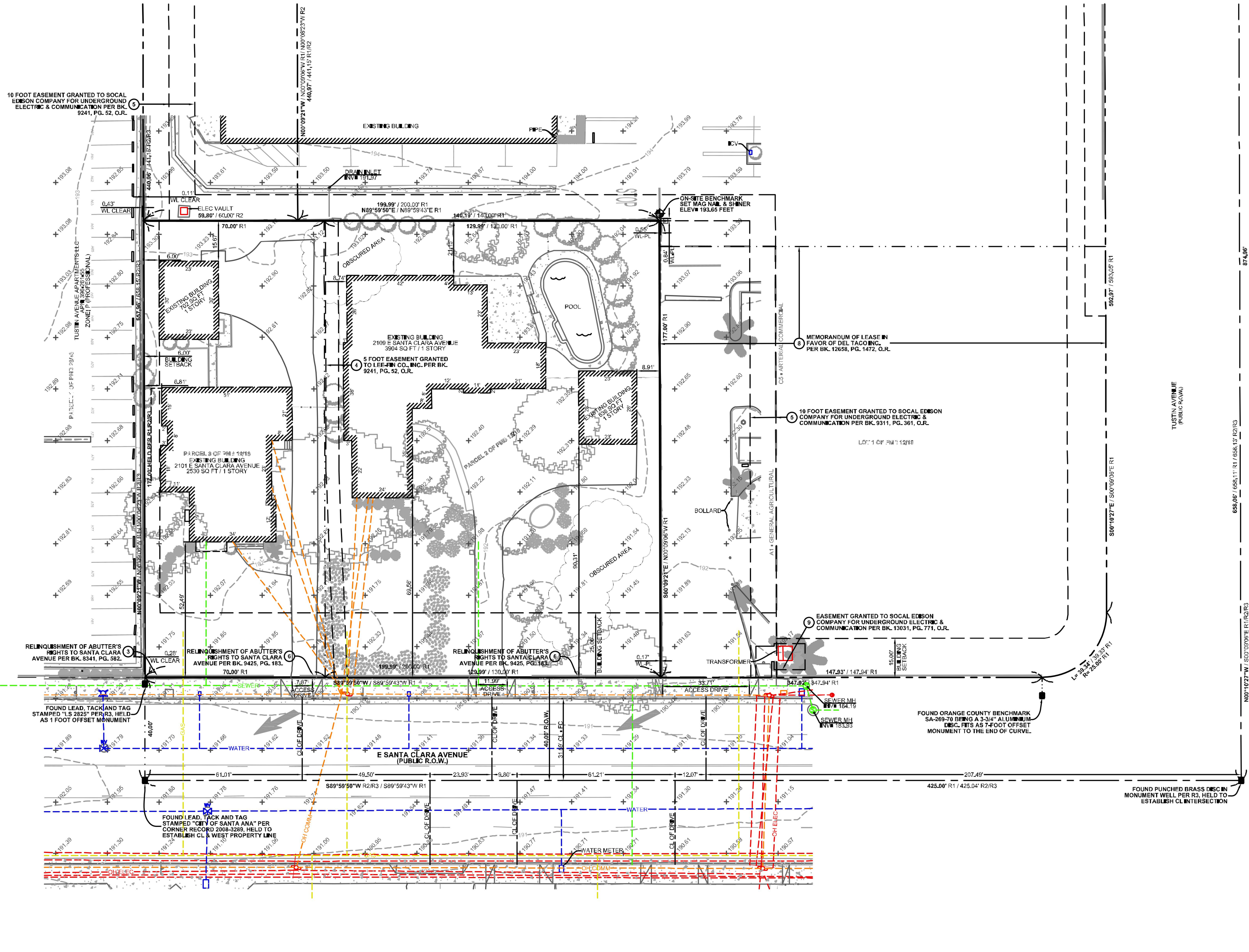


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 ZONING: C-5 (COMMUNITY COMMERCIAL)  
**PARCEL B**  
 BEING PARCELS 1, 2 AND 3 AS RECORDED IN BK. 12, PG. 16 OF PARCEL MAPS  
 APN: 396-261-26, 33, 34, 35, 36, 37 AND 38  
 SQ. FT. = 203,942.274 / 4.682 ACRES  
 ZONING: C-5 (COMMUNITY COMMERCIAL) & A1 (GENERAL AGRICULTURAL)

**MCDONALD'S LEASE**  
 BEING PARCELS 2 AND 3 AS RECORDED IN BK. 12, PG. 16 OF PARCEL MAPS  
 APN: 396-261-26, 33 AND 38  
 SQ. FT. = 35,398.389 / 0.813 ACRES  
 ZONING: A1 (GENERAL AGRICULTURAL)

- LEGEND**  
 NOTE: ALL SYMBOLS OR LINETYPES SHOWN BELOW MAY NOT BE INCORPORATED ON THIS DRAWING.
- PROPERTY BOUNDARY LINE
  - PROPOSED LEASE AREA
  - CENTERLINE
  - INTERMITTENT BOUNDARY LINE
  - EASEMENT LINE
  - 330' EXISTING CONTOURS
  - OVERHEAD ELECTRICAL LINE
  - COMMUNICATION LINE
  - EXISTING CHAIN LINK FENCE
  - EXISTING WROUGHT IRON FENCE
  - BLOCK WALL
  - INDICATES RESTRICTED ACCESS
  - ZONING BOUNDARY
  - ASSESSOR'S PARCEL NUMBER
  - RIGHT OF WAY
  - PL PROPERTY LINE
  - CL CENTERLINE
  - FC FACE OF CURB
  - WL WALL
  - FN FENCE
  - INV INVERT
  - INV INFORMATION CONTROL VALVE
  - PVB PULLBOX
  - FDC FIRE DEPARTMENT CONNECTION
  - BV BACKFLOW PREVENTOR
  - ELEC ELECTRICAL
  - COMM COMMUNICATION
  - MSHL BUILDING HEIGHT LOCATION
  - FHY FIRE HYDRANT
  - LWC LIGHT WITH CONCRETE BASE
  - WV WATER VALVE
  - GV GAS VALVE
  - SDW STORM DRAIN MANHOLE
  - SMW SANITARY SEWER MANHOLE
  - SCW SEWER CLEANOUT
  - GIW GREASE INTERCEPTOR MANHOLE
  - CMW COMMUNICATION MANHOLE
  - SPW SPOT ELEVATIONS
  - STW STREET SIGN
  - UPW UTILITY POLE
  - GWP GUY WIRE
  - EBW EXISTING BOLLARD
  - TSLW TRAFFIC SIGNAL/LIGHTPOLE
  - FMD FOUND MONUMENT AS DESCRIBED
  - SET 5/8" PL. W/ PLASTIC CAP TAG "LS 8645"
  - EWBW EXISTING BUILDING WITH OVERHANG



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 Fax: 145648274937

DATE	REVISIONS	BY

**ALTANSPS LAND TITLE SURVEY**  
 FOR, MCDONALD'S, 004-5088  
 2101/2109 EAST SANTA CLARA AVENUE,  
 CITY OF SANTA ANA, COUNTY OF ORANGE  
 STATE OF CALIFORNIA

PROJECT NUMBER: 004-5088
DWG NAME: 2111 SANTA ANA MCD ALTA
PREPARED BY: ADAM DATE: 11/16/2021
CHECKED BY: JAA/WWW DATE: 11/16/2021
REVISION SHEET 0 3 OF 3

NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED	REFERENCES		ENGINEERS SEAL	PREPARED UNDER THE SUPERVISION OF:	DATE	DATE	PROJECT NO. YY-NNNN: PROJECT TITLE PROJECT LIMITS
						BENCHMARK NO.: 3C-26-06	ELEV.: 173.744' NAVD88					

PROPOSED DRIVE-THRU RESTAURANT  
 2109 E SANTA CLARA AVENUE  
 SANTA ANA, CA 92705  
**PUBLIC WORKS AGENCY**  
 CITY OF SANTA ANA  
 EXISTING CONDITIONS



**GENERAL CONSTRUCTION NOTES**

1. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED. FAILURE TO NOTIFY OWNER OF AN IDENTIFIABLE CONFLICT PRIOR TO PROCEEDING WITH INSTALLATION RELIEVES OWNER OF ANY OBLIGATION TO PAY FOR A RELATED CHANGE ORDER.
3. THE CONTRACTOR AND SUBCONTRACTORS SHOULD BE FAMILIAR WITH ALL STATE AND LOCAL REQUIREMENTS RELATED TO SITE CONSTRUCTION ACTIVITIES PRIOR TO COMMENCING WORK. ALL WORK SHALL CONFORM AS APPLICABLE TO THESE GOVERNING STANDARDS AND SPECIFICATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIAL AND LABOR TO CONSTRUCT THE FACILITY AS SHOWN AND DESCRIBED IN THE CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH THE APPROPRIATE APPROVING AUTHORITIES, SPECIFICATIONS AND REQUIREMENTS. CONTRACTOR SHALL CLEAR AND GRUB ALL AREAS UNLESS OTHERWISE INDICATED, REMOVING TREES, STUMPS, ROOTS, MUCK, EXISTING PAVEMENT AND ALL OTHER DELETERIOUS MATERIAL.
5. EXISTING UTILITIES SHOWN ARE LOCATED ACCORDING TO THE INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF THE TOPOGRAPHIC SURVEY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR THE ENGINEER. GUARANTEE IS NOT MADE THAT ALL EXISTING UNDERGROUND UTILITIES ARE SHOWN OR THAT THE LOCATION OF THOSE SHOWN ARE ENTIRELY ACCURATE. FINDING THE ACTUAL LOCATION OF ANY EXISTING UTILITIES IS THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE DONE BEFORE COMMENCING ANY WORK IN THE VICINITY. FURTHERMORE, THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES WHICH MAY HAVE BURIED OR AERIAL UTILITIES WITHIN OR NEAR THE CONSTRUCTION AREA BEFORE COMMENCING WORK. THE CONTRACTOR SHALL PROVIDE 48 HOURS MINIMUM NOTICE TO ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. AN APPROXIMATE LIST OF THE UTILITY COMPANIES WHICH THE CONTRACTOR MUST CALL BEFORE COMMENCING WORK IS PROVIDED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS. THIS LIST SERVES AS A GUIDE ONLY AND IS NOT INTENDED TO LIMIT THE UTILITY COMPANIES WHICH THE CONTRACTOR MAY WISH TO NOTIFY.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED CONSTRUCTION PERMITS AND BONDS IF REQUIRED PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL HAVE AVAILABLE AT THE JOB SITE AT ALL TIMES ONE COPY OF THE CONSTRUCTION DOCUMENTS INCLUDING PLANS, SPECIFICATIONS, GEOTECHNICAL REPORT AND SPECIAL CONDITIONS AND COPIES OF ANY REQUIRED CONSTRUCTION PERMITS.
9. ALL COPIES OF COMPACTION, CONCRETE AND OTHER REQUIRED TEST RESULTS ARE TO BE SENT TO THE OWNER AND DESIGN ENGINEER OF RECORD DIRECTLY FROM THE TESTING AGENCY.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TO THE ENGINEER A CERTIFIED RECORD SURVEY SIGNED AND SEALED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF CALIFORNIA DEPICTING THE ACTUAL FIELD LOCATION OF ALL CONSTRUCTED IMPROVEMENTS THAT ARE REQUIRED BY THE JURISDICTIONAL AGENCIES FOR THE CERTIFICATION PROCESS. ALL SURVEY COSTS WILL BE THE CONTRACTORS RESPONSIBILITY.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING AND MAINTAINING AS-BUILT INFORMATION WHICH SHALL BE RECORDED AS CONSTRUCTION PROGRESSES OR AT THE COMPLETION OF APPROPRIATE CONSTRUCTION INTERVALS AND SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT DRAWINGS TO THE OWNER FOR THE PURPOSE OF CERTIFICATION TO JURISDICTIONAL AGENCIES AS REQUIRED. ALL AS-BUILT DATA SHALL BE COLLECTED BY A STATE OF CALIFORNIA PROFESSIONAL LAND SURVEYOR WHOSE SERVICES ARE ENGAGED BY THE CONTRACTOR.
12. ANY WELLS DISCOVERED ON SITE THAT WILL HAVE NO USE MUST BE PLUGGED BY A LICENSED WELL DRILLING CONTRACTOR IN A MANNER APPROVED BY ALL JURISDICTIONAL AGENCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY WELL ABANDONMENT PERMITS REQUIRED.
13. ANY WELL DISCOVERED DURING EARTH MOVING OR EXCAVATION SHALL BE REPORTED TO THE APPROPRIATE JURISDICTIONAL AGENCIES WITHIN 24 HOURS AFTER DISCOVERY IS MADE.
14. ANY EXISTING UTILITY, WHICH IS TO BE EXTENDED, WHICH IS THE CONNECTION POINT FOR NEW UNDERGROUND UTILITIES, OR WHICH NEW FACILITIES CROSS, SHALL BE EXPOSED BY THE CONTRACTOR PRIOR TO PLACEMENT OF THE NEW UTILITIES. COST OF SUCH EXCAVATION AND SUBSEQUENT BACKFILL SHALL BE INCLUDED IN THE PRICES PAID FOR THE VARIOUS ITEMS OF WORK. THE ELEVATIONS AND LOCATIONS OF THE EXISTING FACILITIES WILL BE CHECKED BY THE PUBLIC WORKS INSPECTOR AND THE ENGINEER. IF IN THE OPINION OF THE INSPECTOR A CONFLICT EXISTS, THEN THE ENGINEER SHALL MAKE ANY NEEDED GRADE AND/OR AUGMENT ADJUSTMENTS AND REVISE THE PLANS ACCORDINGLY. ALL GRAVITY FLOW PIPELINES TO BE LAID UPGRADE FROM THE LOWEST POINT STARTING AT THE END OF EXISTING IMPROVEMENTS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER AT LEAST 24 HOURS PRIOR TO BACKFILLING OF ANY PIPE WHICH STUBS TO A FUTURE PHASE OF CONSTRUCTION FOR INVERT VERIFICATION. TOLERANCE SHALL BE IN ACCORDANCE WITH CITY STANDARD SPECIFICATIONS.

**DESIGN ENGINEER NOTES**

1. THE TERM DESIGN ENGINEER/USED HEREIN SHALL MEAN THE ENGINEER WHO HAS SIGNED AND SEALED HIS/HER RESPECTIVE PLAN SHEETS AND IS IN RESPONSIBLE CHARGE OF THE ENGINEERING DESIGN ON THESE SHEETS. THE TERM CONTRACTOR/USED HEREIN SHALL MEAN ANY GENERAL CONTRACTOR OR SUBCONTRACTOR USING THESE PLANS.
2. THE DESIGN ENGINEER SHALL NOT PROVIDE, OBSERVE, COMMENT ON NOR ENFORCE ANY SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, IMPLEMENT, AND MAINTAIN ALL SAFETY MEASURES AND SHALL BE SOLELY RESPONSIBLE FOR ALL REQUIRED SAFETY MEASURES, PROCEDURES AND PROGRAMS AND COMPLYING WITH ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS. THE CONTRACTOR AGREES THAT SHE/HIS/HE ASSUMES THE SOLE RESPONSIBILITY FOR JOBSITE CONDITIONS AND SAFETY OF ALL PERSONS AND PROPERTY DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
3. THE DESIGN ENGINEER SHALL HAVE NO RESPONSIBILITY FOR ANY OF THE CONTRACTOR'S MEANS AND METHODS OF CONSTRUCTION, TECHNIQUES, EQUIPMENT CHOICE AND USAGE, SEQUENCE, SCHEDULE, SAFETY PROGRAMS OR SAFETY PRACTICES, NOR SHALL THE DESIGN ENGINEER HAVE ANY AUTHORITY OR RESPONSIBILITY TO DIRECT OR STOP THE WORK OF ANY CONTRACTOR.
4. ANY CHANGES MADE BY THE CONTRACTOR TO THE CONTRACTUALLY AGREED UPON SCOPE, SCHEDULE AND/OR FEE, WITHOUT THE EXPRESS WRITTEN AUTHORIZATION OF THE OWNER, IS THE SOLE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR. THE DESIGN ENGINEER IS NOT RESPONSIBLE FOR DIRECTING, IMPLICITLY OR EXPLICITLY, ANY SUCH CHANGES AND THE CONTRACTOR ASSUMES ALL RISK OF UNDERTAKING ANY SUCH CHANGES.
5. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE DESIGN ENGINEER AND OWNER, THEIR OFFICERS, AGENTS AND EMPLOYEES, HARMLESS FROM ANY AND ALL CLAIMS, DEMANDS, JUDGMENTS, LOSS, DAMAGES, COSTS, EXPENSES, FEES OR LIABILITY WHATSOEVER, REAL OR ALLEGED, IN CONNECTION WITH, IN WHOLE OR IN PART, DIRECTLY OR INDIRECTLY, THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE DESIGN ENGINEER.
6. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS, THE CONTRACTOR SHALL REQUEST IN WRITING FROM THE DESIGN ENGINEER AND THE OWNER, AN INTERPRETATION BEFORE PERFORMING ANY RELATED OR IMPACTED WORK. ANY ELECTRONIC FILES ARE PROVIDED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR AND ARE NOT TO BE USED FOR THE EXPLICIT PURPOSES AUTHORIZED. IN ACCORDANCE WITH STANDARD INDUSTRY PRACTICE, ONLY PRINTED COPIES OF DOCUMENTS MAY BE RELIED UPON.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR PREPARING ITS BID, IN WHOLE AND IN PART, BASED UPON THE DESIGN SHOWN ON THESE PLANS. THE CONTRACTOR IS NOT AUTHORIZED TO USE ANY QUANTITIES SHOWN ON THESE PLANS WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD. THE DESIGN ENGINEER MAKES NO WARRANTY OR REPRESENTATION AS TO THE SUFFICIENCY OF ANY INFORMATION SHOWN HEREON FOR DETERMINING A CONTRACT BID.
8. ANYTHING MENTIONED IN THE SPECIFICATIONS, IF ANY, AND NOT SHOWN ON THE DRAWINGS, OR SHOWN ON THE DRAWINGS AND NOT MENTIONED IN THE SPECIFICATIONS, SHALL BE OF LIKE EFFECT AS IF SHOWN OR MENTIONED IN BOTH.
9. THE EXISTENCE, LOCATION, TYPE, CONDITION AND SIZE OF UNDERGROUND UTILITIES, FACILITIES OR STRUCTURES ("FACILITIES") SHOWN ON THESE PLANS WAS OBTAINED FROM A SEARCH OF READILY AVAILABLE RECORDS, OR AS PROVIDED BY OTHERS. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID INFORMATION. THE CONTRACTOR SHALL CONFIRM SAID INFORMATION BY FIELD MEASUREMENTS, OBSERVATIONS AND WHATEVER MEANS NECESSARY, PRIOR TO CONSTRUCTION. THE CONTRACTOR WILL IMMEDIATELY INFORM THE DESIGN ENGINEER IN WRITING IF ANY DISCREPANCIES OR CONFLICTING INFORMATION IS FOUND. THE CONTRACTOR SHALL PROTECT THE FACILITIES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS, AS NEEDED. ALL DAMAGES THERE TO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND STANDARDS AT THE SOLE EXPENSE OF THE CONTRACTOR.
10. THE CONTRACTOR SHALL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES AS NEEDED, SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY DUE TO THE ACTUAL LOCATION, SIZE, TYPE, OR CONDITION OF EXISTING FACILITIES DIFFERING FROM WHAT IS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ALL DAMAGES DUE TO THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ALL SUCH FACILITIES WHETHER NOTED ON THESE PLANS OR NOT. THE DESIGN ENGINEER ASSUMES NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ANY DAMAGE TO THE EXISTING IMPROVEMENTS AND REPLACEMENT TO THE SATISFACTION OF THE OWNER AND/OR AUTHORITY HAVING JURISDICTION AS NEEDED.
11. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO STARTING WORK ADJACENT TO, ABOVE OR BELOW THEIR FACILITIES AND SHALL COORDINATE ALL WORK WITH UTILITY COMPANY REPRESENTATIVES.
12. THE CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED GRADING ELEMENTS BEFORE THE START OF CONSTRUCTION AND SHALL IMMEDIATELY NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES.
13. UNLESS EXPLICITLY STATED OTHERWISE HEREIN, THE EARTHWORK QUANTITIES SHOWN ON THESE PLANS ARE APPROXIMATE IN PLACE VOLUMES CALCULATED FROM THE EXISTING GROUND TO THE PROPOSED FINISHED GRADE. EXISTING GROUND IS DEFINED BY THE CONTOURS AND SPOT GRADES ON THE BASE PLAN(S). THE PROPOSED FINISHED GRADE IS DEFINED AS THE FINAL GRADE AS INDICATED ON THE GRADING PLAN(S) AS FINISHED GROUND, FINISHED SURFACE, AND FINISHED FLOOR ELEVATIONS. NO REPRESENTATIONS OF SUCH QUANTITIES OR A BALANCED SITE CONDITION ARE MADE BY THE ENGINEER OF RECORD. THE EARTHWORK QUANTITIES SHOWN ON THESE PLANS ARE FOR PERMITTING PURPOSES ONLY, UNLESS EXPLICITLY STATED OTHERWISE HEREIN. THEY HAVE NOT BEEN FACTORED TO ACCOUNT FOR CHANGES IN VOLUME DUE TO BULKING, CLEARING AND GRUBBING, SHRINKAGE, SUBSIDENCE, OVER-EXCAVATION AND RE-COMPACTION, AND CONSTRUCTION METHODS, NOR DO THEY ACCOUNT FOR THE THICKNESS OF PAVEMENT SECTIONS, STORMWATER QUALITY MEDIA SECTIONS, TRENCHING AND BEDDING MATERIALS, BUILDING OR WALL FOOTINGS, BUILDING SLABS THICKNESSES AND UNDERLYING BASE OR SAND LAYERS, REUSE OF PULVERIZED MATERIALS THAT WILL UNDERLIE PAVEMENTS, ETC. THE CONTRACTOR IS NOT AUTHORIZED TO MAKE ANY CHANGES TO THE PLANS ARE FOR PERMITTING PURPOSES WITHOUT THE EXPLICIT WRITTEN PERMISSION OF THE ENGINEER OF RECORD.
14. PROPOSED BUILDING PAD ELEVATIONS, IF SHOWN, ARE BASED ON INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE PLANS. THE CONTRACTOR SHALL CONFIRM SLAB STRUCTURAL SECTION THICKNESSES AND PAD PREPARATION REQUIREMENTS PRIOR TO GRADING FINISHED PADS.
15. THE CONTRACTOR SHALL THOROUGHLY CHECK COORDINATION OF CIVIL, LANDSCAPE, MEP, ARCHITECTURAL AND ALL OTHER PLANS PRIOR TO COMMENCING CONSTRUCTION. SHOULD DISCREPANCIES OR CONFLICTING INFORMATION BE FOUND ON ANY PLANS, OR IN ANY SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER AND DESIGN ENGINEER IN WRITING BEFORE PROCEEDING WITH THE WORK IN QUESTION.
16. THE PROPOSED BUILDING FOOTPRINT(S) AND OTHER STRUCTURE FOOTPRINTS SHOWN IN THESE PLANS WERE PROVIDED TO THE DESIGN ENGINEER BY THE PROJECT ARCHITECT AT THE TIME OF PREPARATION OF THESE PLANS. THE DESIGN ENGINEER MAKES NO REPRESENTATION AS TO THE ACCURACY OF THESE FOOTPRINTS AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING WITH THE RELEVANT DESIGN TEAM PROFESSIONALS, AND USING THE FINAL, CORRECT VERSION OF THE FOOTPRINTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONFIRMING THE STRUCTURE'S FINAL POSITION ON THE SITE BASED UPON THE FINAL ARCHITECTURAL FOOTPRINT, CIVIL PLANS, SURVEY AND ANY OTHER RELEVANT DOCUMENTS. ANY DIFFERENCES FOUND SHALL BE IMMEDIATELY REPORTED TO THE DESIGN ENGINEER AND OWNER/PROJECT ARCHITECT.
17. THE CONTRACTOR SHALL TAKE ALL NECESSARY STEPS TO PROTECT THE PROJECT PROPERTY FROM ANY EROSION AND SILTATION THAT RESULT FROM CONTRACTOR OPERATIONS, BY APPROPRIATE MEANS, OR BY SPECIFIC MEANS DESCRIBED IN THE PROJECT'S PLANS, SPECIFICATIONS OR STORM WATER POLLUTION PREVENTION REPORT, UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHOMEVER IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE AND THE AGENCY HAVING JURISDICTION. THE DESIGN ENGINEER SHALL HAVE NO RESPONSIBILITY TO DIRECT THE CONTRACTOR REGARDING THE MEANS AND METHODS OF STORMWATER POLLUTION PREVENTION, SEQUENCE, OR SCHEDULE.
18. ALL SHOP DRAWINGS, RFIS AND ANY OTHER DOCUMENTS THAT REQUIRE DESIGN ENGINEER REVIEW SHALL BE SUBMITTED BY THE CONTRACTOR SUFFICIENTLY IN ADVANCE OF CONSTRUCTION OF THAT ITEM TO ALLOW ADEQUATE REVIEW, COORDINATION AND RESPONSE. SAID DOCUMENTS ARE NOT A DIRECTION FROM THE DESIGN ENGINEER TO MODIFY THE CONTRACTORS SCOPE, SCHEDULE OR PRICE, AND THE CONTRACTOR WARRANTS NOT TO USE THEM AS SUCH.
19. THE CONTRACTOR SHALL ENSURE APPROPRIATE LICENSED PROFESSIONALS HAVE BEEN RETAINED BY THE CONTRACTOR TO PROVIDE ANY/ALL REQUIRED PROJECT CERTIFICATIONS AS MAY BE REQUIRED BY ANY AUTHORITY HAVING JURISDICTION. THE DESIGN ENGINEER WILL NOT PROVIDE ANY PROJECT CERTIFICATIONS UNLESS SPECIFICALLY RETAINED BY THE OWNER TO PROVIDE LIMITED SERVICES.
20. CONTRACTOR SHALL RETAIN A LICENSED SURVEYOR TO DOCUMENT ALL CHANGES TO THE APPROVED CONSTRUCTION DOCUMENTS DURING CONSTRUCTION. THE LICENSED SURVEYOR SHALL PREPARE, SIGN, SEAL AND SEALED "AS-BUILT" DRAWING UPON COMPLETION OF CONSTRUCTION. THE DESIGN ENGINEER IS NOT RESPONSIBLE FOR THE PREPARATION IN WHOLE OR IN PART OF THE "AS-BUILT" DRAWINGS.
21. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MONUMENTATION AND BENCHMARKS WHICH WILL BE DISTURBED OR DESTROYED BY CONSTRUCTION. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AS REQUIRED BY THE MOST CURRENT VERSION OF THE LAND SURVEYORS ACT.

**EROSION CONTROL NOTES**

1. THE STORM WATER POLLUTION PREVENTION PLAN ("SWPPP") IS COMPRISED OF THIS EROSION CONTROL PLAN, THE STANDARD DETAILS, THE PLAN NARRATIVE, ATTACHMENTS INCLUDED IN THE SPECIFICATIONS OF THE SWPPP, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF CALIFORNIA NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. THE CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO THE OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. THE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY THE PERMITTING AGENCY OR OWNER.
5. EROSION CONTROL PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. THE CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DUST CONTROL ON SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIAL SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THE PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
13. STABILIZATION PRACTICES SHOULD BE INITIATED AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS WHERE CONSTRUCTION HAS TEMPORARILY CEASED.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRED IN THESE AREAS.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED AS SOON AS POSSIBLE.
17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFF SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE EROSION CONTROL PLAN AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SLT FENCES, ETC.) TO PREVENT EROSION.
21. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH WORKING DAY, THIS INCLUDES BACK FILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR BITUMINOUS PAVING FOR ROAD CONSTRUCTION.

**DEMOLITION NOTES**

1. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.
2. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC., LOCATED WITHIN THE PROJECT SITE, UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. REFER TO THE DEMOLITION PLAN FOR THE LIMITS OF ASPHALT REMOVAL (THE EXISTING PARKING LOT IS TO REMAIN). IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE AND DETERMINE THE FULL EXTENT OF ITEMS TO BE REMOVED. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
3. THE CONTRACTOR SHALL REFER TO THE DEMOLITION PLAN AND LANDSCAPE PLAN FOR DEMOLITION/PRESERVATION OF EXISTING TREES: ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED AS NECESSARY PRIOR TO ANY DEMOLITION.
4. CONTRACTOR SHALL ADJUST GRADE OF ANY RIMS/COVERS TO THE FINISHED ELEVATIONS OF EXISTING UTILITIES TO REMAIN.

**PAVING, GRADING AND DRAINAGE NOTES**

1. ALL PAVING, CONSTRUCTION, MATERIALS, AND WORKMANSHIP WITHIN JURISDICTION'S RIGHT-OF-WAY SHALL BE IN ACCORDANCE WITH LOCAL OR COUNTY SPECIFICATIONS AND STANDARDS (LATEST EDITION) OR CALTRANS SPECIFICATIONS AND STANDARDS (LATEST EDITION) IF NOT COVERED BY LOCAL OR COUNTY REGULATIONS.
2. ALL UNPAVED AREAS IN EXISTING RIGHTS-OF-WAY DISTURBED BY CONSTRUCTION SHALL BE REGRADED AND REPAIRED TO EXISTING CONDITION OR BETTER.
3. TRAFFIC CONTROL ON ALL CALTRANS, LOCAL AND COUNTY RIGHTS-OF-WAY SHALL MEET THE REQUIREMENTS OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (U.S. DOT/FHA) AND THE REGULATIONS OF THE STATE AND ANY LOCAL AGENCY HAVING JURISDICTION. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
4. THE CONTRACTOR SHALL GRADE THE SITE TO THE ELEVATIONS INDICATED AND SHALL REGRADE WASHOUTS WHERE THEY OCCUR AFTER EVERY RAINFALL UNTIL AN ADEQUATE STABILIZATION OCCURS.
5. ALL OPEN AREAS WITHIN THE PROJECT SITE SHALL BE COVERED WITH ROCK UNLESS INDICATED OTHERWISE ON THE LANDSCAPE PLAN.
6. ALL AREAS INDICATED AS PAVEMENT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE TYPICAL PAVEMENT SECTIONS AS INDICATED ON THE DRAWINGS.
7. WHERE EXISTING PAVEMENT IS INDICATED TO BE REMOVED AND REPLACED, THE CONTRACTOR SHALL SAW CUT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND REPLACE THE PAVEMENT WITH THE SAME TYPE AND DEPTH OF MATERIAL AS EXISTING OR AS INDICATED.
8. WHERE NEW PAVEMENT MEETS THE EXISTING PAVEMENT, THE CONTRACTOR SHALL SAW CUT THE EXISTING PAVEMENT A MINIMUM 2" DEEP FOR A SMOOTH AND STRAIGHT JOINT AND MATCH THE EXISTING PAVEMENT ELEVATION WITH THE PROPOSED PAVEMENT UNLESS OTHERWISE INDICATED.
9. THE CONTRACTOR SHALL INSTALL FILTER FABRIC OVER ALL DRAINAGE STRUCTURES FOR THE DURATION OF CONSTRUCTION AND UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER. ALL DRAINAGE STRUCTURES SHALL BE CLEANED OF DEBRIS AS REQUIRED DURING AND AT THE END OF CONSTRUCTION TO PROVIDE POSITIVE DRAINAGE FLOWS.
10. IF DEWATERING IS REQUIRED, THE CONTRACTOR SHALL OBTAIN ANY APPLICABLE REQUIRED PERMITS. THE CONTRACTOR IS TO COORDINATE WITH THE OWNER AND THE DESIGN ENGINEER PRIOR TO ANY EXCAVATION.
11. STRIP TOPSOIL AND ORGANIC MATTER FROM ALL AREAS OF THE SITE AS REQUIRED. IN SOME CASES TOPSOIL MAY BE STOCKPILED ON SITE FOR PLACEMENT WITHIN LANDSCAPED AREAS BUT ONLY AS DIRECTED BY THE OWNER.
12. FIELD DENSITY TESTS SHALL BE TAKEN AT INTERVALS IN ACCORDANCE WITH THE LOCAL JURISDICTIONAL AGENCY.
13. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED AS PER PLANS. THE AREAS SHALL THEN BE STABILIZED BY MEANS AND METHODS APPROVED BY THE LOCAL AGENCY. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE JOB SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. ALL EARTHEN AREAS WILL BE COVERED WITH ROCK OR MULCHED AS SHOWN ON THE LANDSCAPING PLAN.
14. ALL CUT OR FILL SLOPES SHALL BE 4:1 (HORIZONTAL) : 1 (VERTICAL) OR FLATTER UNLESS OTHERWISE SHOWN.
15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.
16. THE CONTRACTOR SHALL TAKE ALL REQUIRED MEASURES TO CONTROL TURBIDITY, INCLUDING BUT NOT LIMITED TO THE INSTALLATION OF TURBIDITY BARRIERS AT ALL LOCATIONS WHERE THE POSSIBILITY OF TRANSFERRING SUSPENDED SOLIDS INTO THE RECEIVING WATER BODY EXISTS DUE TO THE PROPOSED WORK. TURBIDITY BARRIERS MUST BE MAINTAINED IN EFFECTIVE CONDITION AT ALL LOCATIONS UNTIL CONSTRUCTION IS COMPLETED AND DISTURBED SOIL AREAS ARE STABILIZED. THEREAFTER, THE CONTRACTOR MUST REMOVE THE BARRIERS, AT NO TIME SHALL THERE BE ANY OFF-SITE DISCHARGE WHICH VIOLATES THE WATER QUALITY STANDARDS OF THE GOVERNING CODE.
17. EXPOSED SLOPES SHOULD BE STABILIZED WITHIN 48 HOURS OF COMPLETING FINAL GRADING, AND AT ANY OTHER TIME AS NECESSARY, TO PREVENT EROSION, SEDIMENTATION OR TURBID DISCHARGES.
18. THE CONTRACTOR MUST REVIEW AND MAINTAIN A COPY OF THE REQUIRED PERMITS COMPLETE WITH ALL CONDITIONS, ATTACHMENTS, EXHIBITS, AND PERMIT MODIFICATIONS IN GOOD CONDITION AT THE CONSTRUCTION SITE. THE COMPLETE PERMIT MUST BE AVAILABLE FOR REVIEW UPON REQUEST BY GOVERNING JURISDICTIONS.
19. THE CONTRACTOR SHALL ENSURE THAT ISLAND PLANTING AREAS AND OTHER PLANTING AREAS ARE NOT COMPACTED AND DO NOT CONTAIN ROAD BASE MATERIALS. THE CONTRACTOR SHALL ALSO EXCAVATE AND REMOVE ALL UNDESIRABLE MATERIAL FROM ALL AREAS ON THE SITE TO BE PLANTED AND PROPERLY DISPOSED OF IN A LEGAL MANNER.
20. THE CONTRACTOR SHALL INSTALL ALL UNDERGROUND STORM WATER PIPING PER MANUFACTURER'S RECOMMENDATIONS.

**WATER AND SEWER UTILITY NOTES**

1. THE CONTRACTOR SHALL CONSTRUCT GRAVITY SEWER LATERALS, CLEANOUTS, GRAVITY SEWER LINES, AND DOMESTIC WATER AND FIRE PROTECTION SYSTEM AS SHOWN ON THESE PLANS. THE CONTRACTOR SHALL FURNISH ALL NECESSARY MATERIALS, EQUIPMENT, MACHINERY, TOOLS, MEANS OF TRANSPORTATION AND LABOR NECESSARY TO COMPLETE THE WORK IN FULL AND COMPLETE ACCORDANCE WITH THE SHOWN, DESCRIBED AND REASONABLY INTENDED REQUIREMENTS OF THE CONTRACT DOCUMENTS AND JURISDICTIONAL AGENCY REQUIREMENTS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
2. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS FOR UTILITY LOCATION AND COORDINATION IN ACCORDANCE WITH THE NOTES CONTAINED IN THE GENERAL CONSTRUCTION SECTION OF THIS SHEET. THE CONTRACTOR SHALL ALSO SCOPE THE SEWER LINES ON SITE AND RECORD A DVD.
3. THE CONTRACTOR SHALL RESTORE ALL DISTURBED VEGETATION IN KIND, UNLESS SHOWN OTHERWISE.
4. DEFLECTION OF PIPE JOINTS AND CURVATURE OF PIPE SHALL NOT EXCEED THE MANUFACTURER'S SPECIFICATIONS. SECURELY CLOSE ALL OPEN ENDS OF PIPE AND FITTINGS WITH A WATERTIGHT PLUG WHEN WORK IS NOT IN PROGRESS. THE INTERIOR OF ALL PIPES SHALL BE CLEAN AND JOINT SURFACES WIPED CLEAN AND DRY AFTER THE PIPE HAS BEEN LOWERED INTO THE TRENCH. VALVES SHALL BE PLUMB AND LOCATED ACCORDING TO THE PLANS.
5. ALL PHASES OF INSTALLATION, INCLUDING UNLOADING, TRENCHING, LAYING AND BACK FILLING, SHALL BE DONE IN A FIRST CLASS WORKMANLIKE MANNER. ALL PIPE AND FITTINGS SHALL BE CAREFULLY STORED FOLLOWING MANUFACTURER'S RECOMMENDATIONS. CARE SHALL BE TAKEN TO AVOID DAMAGE TO THE COATING OR LINING IN ANY D.I. PIPE FITTINGS. ANY PIPE OR FITTING WHICH IS DAMAGED OR WHICH HAS FLAWS OR IMPERFECTIONS WHICH, IN THE OPINION OF THE ENGINEER OR OWNER, RENDERS IT UNFIT FOR USE, SHALL NOT BE USED. ANY PIPE NOT SATISFACTORY FOR USE SHALL BE CLEARLY MARKED AND IMMEDIATELY REMOVED FROM THE JOB SITE, AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
6. WATER FOR FIRE FIGHTING SHALL BE AVAILABLE FOR USE PRIOR TO COMBUSTIBLES BEING BROUGHT ON SITE.
7. ALL UTILITY AND STORM DRAIN TRENCHES LOCATED UNDER AREAS TO RECEIVE PAVING SHALL BE COMPLETELY BACK FILLED IN ACCORDANCE WITH THE GOVERNING JURISDICTIONAL AGENCY'S SPECIFICATIONS. IN THE EVENT THAT THE CONTRACT DOCUMENTS AND THE JURISDICTIONAL AGENCY REQUIREMENTS ARE NOT IN AGREEMENT, THE MOST STRINGENT SHALL GOVERN.
8. UNDERGROUND LINES SHALL BE SURVEYED BY A STATE OF CALIFORNIA PROFESSIONAL LAND SURVEYOR PRIOR TO BACK FILLING.
9. CONTRACTOR SHALL PERFORM, AT HIS OWN EXPENSE, ANY AND ALL TESTS REQUIRED BY THE SPECIFICATIONS AND/OR ANY AGENCY HAVING JURISDICTION. THESE TESTS MAY INCLUDE, BUT MAY NOT BE LIMITED TO, INFILTRATION AND EXFILTRATION, TELEVISION INSPECTION AND A MANDREL TEST ON GRAVITY SEWER. A COPY OF THE TEST RESULTS SHALL BE PROVIDED TO THE UTILITY PROVIDER, OWNER AND JURISDICTIONAL AGENCY AS REQUIRED.

**BUILDING AND SAFETY DIVISION NOTES**

1. FILL TO BE COMPACTED TO NOT LESS THAN 90% OF MAXIMUM DENSITY AS DETERMINED BY A.S.T.M. SOIL COMPACTION TEST D1557.
2. FIELD DENSITY WILL BE DETERMINED BY THE SAND-CONE METHOD A.S.T.M. 1556-07 AND/OR NUCLEAR DENSITY GAUGE METHOD A.S.T.M. 2922/3017 IN FINE GRAINED, COHESIVE SOILS. FIELD DENSITY MAY BE DETERMINED BY THE DRIVE-CYLINDER METHOD D2937 A.S.T.M. PROVIDED NOT LESS THAN 20% OF THE REQUIRED DENSITY TESTS, UNIFORMLY DISTRIBUTED, ARE BY THE SAND-CONE METHOD. THE METHOD OF DETERMINING FIELD DENSITY SHALL BE SHOWN IN THE COMPACTION REPORT. OTHER METHODS MAY BE USED IF RECOMMENDED BY THE SOILS ENGINEER AND APPROVED IN ADVANCE BY THE BUILDING OFFICIAL.
3. NOT LESS THAN ONE FIELD DENSITY TEST WILL BE MADE FOR EACH TWO-FOOT VERTICAL LIFT OF FILL NOR LESS THAN ONE AUGER TEST FOR EACH 1,000 CUBIC YARDS OF MATERIAL PLACED UNLESS OTHERWISE RECOMMENDED BY THE SOILS ENGINEER.
4. NO FILL TO BE PLACED UNTIL STRIPPING OF VEGETATION, REMOVAL OF UNSUITABLE SOILS AND INSTALLATION OF SUBDRAINS (IF ANY) HAS BEEN INSPECTED AND APPROVED BY THE SOILS ENGINEER.
5. NO ROCK OR SIMILAR MATERIAL GREATER THAN 8" IN DIAMETER WILL BE PLACED IN THE FILL UNLESS RECOMMENDATIONS FOR SUCH PLACEMENT HAVE BEEN SUBMITTED BY THE SOILS ENGINEER IN ADVANCE AND APPROVED BY THE BUILDING OFFICIAL.
6. FINISH GRADING WILL BE COMPLETED AND APPROVED BEFORE OCCUPANCY OF BUILDINGS.
7. SEE C1.0 - CIVIL COVER SHEET FOR EARTHWORK VOLUMES.
8. FILL SLOPES SHALL NOT BE STEEPER THAN 2:1.
9. PRIOR TO THE ISSUANCE OF BUILDING PERMITS, SUBMIT A SOIL'S ENGINEER REPORT ON THE EXPANSIVE PROPERTIES OF SOILS AS SUCH SOILS ARE DEFINED BY THE BUILDING CODE, SECTION 2904(E) ON ALL BUILDING SITES IN THE PROPOSED SUBDIVISION.
10. DENSITY TESTS WILL BE MADE AT POINTS APPROXIMATELY ONE FOOT BELOW THE FILL SLOPE SURFACE. ONE TEST WILL BE MADE FOR EACH 1,000 SQ. FT. OF SLOPE SURFACE, BUT NOT LESS THAN ONE TEST FOR EACH 10 TO FT. VERTICAL OF SLOPE HEIGHT UNLESS OTHERWISE RECOMMENDED BY THE SOILS ENGINEER.
11. ALL PADS AT ROUGH GRADING WILL HAVE A MINIMUM SLOPE OF 1 % TOWARDS THE STREET OR DESIGNED DRAINAGE OUTLET.
12. ENGINEER MUST SET GRADE STAKES FOR ALL DRAINAGE DEVICES AND OBTAIN INSPECTION BEFORE POURING.
13. APPROVAL OF THIS PLAN BY THE LOCAL AGENCY DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES WITHIN THE LIMITS OF THIS PROJECT.
14. FILLS SHALL BE BENCHED IN ACCORDANCE WITH APPROVED GEOTECHNICAL REPORT
15. ALL TRENCH BACKFILLS SHALL BE TESTED AND CERTIFIED BY THE SITE SOILS ENGINEER PER THE GRADING CODE.
16. SUBDRAIN OUTLETS SHALL BE COMPLETED AT THE BEGINNING OF THE SUBDRAIN CONSTRUCTION.
17. THE EXACT LOCATION OF THE SUBDRAINS SHALL BE SURVEYED IN THE FIELD FOR LINE AND GRADE.
18. ALL CUT SLOPES SHALL BE INVESTIGATED BOTH DURING AND AFTER GRADING BY AN ENGINEERING UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT, THE CONTRACTOR DISCLOSE ANY GEOLOGICAL HAZARDS OR POTENTIAL GEOLOGICAL HAZARDS, THE ENGINEERING GEOLOGIST SHALL RECOMMEND NECESSARY TREATMENT TO THE BUILDING OFFICIAL FOR APPROVAL.
19. WHERE SUPPORT OR BUTTRESSING OF CUT AND NATURAL SLOPES IS DETERMINED TO BE NECESSARY BY THE ENGINEERING GEOLOGIST AND SOILS ENGINEER, THE SOILS ENGINEER WILL SUBMIT DESIGN, LOCATION AND CALCULATIONS TO THE BUILDING OFFICIAL PRIOR TO CONSTRUCTION. THE ENGINEERING GEOLOGIST AND SOILS ENGINEER WILL INSPECT AND CONTROL THE CONSTRUCTION OF THE BUTTRESSING AND CERTIFY TO THE STABILITY OF THE SLOPE AND ADJACENT STRUCTURES UPON COMPLETION.
20. THE SOILS ENGINEER AND ENGINEERING GEOLOGIST SHALL PERFORM SUFFICIENT INSPECTIONS AND BE AVAILABLE DURING GRADING AND CONSTRUCTION TO PROVIDE CONSULTATION CONCERNING COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND CODE WITHIN THEIR PURVIEW.
21. THE DESIGN CIVIL ENGINEER SHALL BE AVAILABLE DURING GRADING AND CONSTRUCTION FOR CONSULTATION CONCERNING COMPLIANCE WITH THE PLANS, SPECIFICATIONS, AND CODE WITHIN THIS PURVIEW.
22. DUST SHALL BE CONTROLLED BY WATERING.
23. SANITARY FACILITIES SHALL BE MAINTAINED ON THE SITE.
24. THE LOCATION AND PROTECTION OF ALL UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.
25. THE CUT PORTION OF CUT/FILL TRANSITION LOTS SHOULD BE OVEREXCAVATED 36" AND BE REPLACED WITH COMPACTED FILL TO A MINIMUM RELATIVE COMPACTION OF 90% UNLESS OTHERWISE RECOMMENDED BY THE SOILS ENGINEER.

**RECORD DRAWINGS**

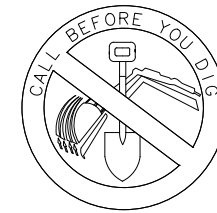
1. WHERE LOCAL JURISDICTIONS REQUIRE RECORD DRAWINGS, THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER AND OWNER COPIES OF A PAVING, GRADING AND DRAINAGE RECORD DRAWING AND A SEPARATE UTILITY RECORD DRAWING, BOTH PREPARED BY A CALIFORNIA REGISTERED SURVEYOR. THE RECORD DRAWINGS SHALL VERIFY ALL DESIGN INFORMATION INCLUDED ON THE DESIGN PLANS OF THE SAME NAME.

**PROJECT CLOSEOUT**

CONTRACTOR SHALL PROVIDE THE NECESSARY ITEMS INCLUDING ANY TESTING, REPORTS, OR CERTIFICATION DOCUMENTS REQUIRED BY THE GOVERNING JURISDICTIONS TO PROPERLY CLOSEOUT THE PROJECT BEFORE IT CAN BE DEEMED COMPLETE.

Underground Service Alert  
of Southern California

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TWO WORKING DAYS  
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**NOTICE TO CONTRACTOR**

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**PROPOSED DRIVE-THRU RESTAURANT**

2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705

**PUBLIC WORKS AGENCY**  
CITY OF SANTA ANA

**PRIVATE GENERAL NOTES**

FILE NO.:

R-

**REVISIONS**

NUMBER	DATE	INITIALS	DESCRIPTION

**REFERENCES**

APPROVED/INSTALLED	BENCHMARK NO.:	ELEV.:	NAVD88
	3C-26-06	173.744'	NAVD88
	THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTH-EAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET.		
	THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14566, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.		
	CONSTRUCTION COMPLETED:		

**ENGINEERS SEAL**



**PREPARED UNDER THE SUPERVISION OF:**

HANNAH LUEVANO

REVIEWED FOR CONSTRUCTION: JASON GABRIEL

SENIOR CIVIL ENGINEER RCE NO.: 90371  
DESIGNED: HS DRAWN: MH CHECKED: HS

PRINCIPAL CIVIL ENGINEER RCE NO.: 62968

**DATE**

8/29/2023

XX/YYYY

PROJECT NO. Y1-NMNN-PROJECT TITLE PROJECT LIMITS

**GENERAL NOTES FOR PUBLIC WORKS PERMITTED WORK ON SEWER COLLECTION SYSTEM (STANDARD 1200)**

- CONSTRUCTION AND INSTALLATION OF ALL SEWER MAINS AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY OF SANTA ANA STANDARD PLANS AND SPECIFICATIONS. WHERE THE STANDARD PLANS ARE SILENT, CONSTRUCTION AND INSTALLATION OF SEWER MAINS AND APPURTENANCES SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2012 EDITION.
- CONSTRUCTION OF SEWER MAINS AND APPURTENANCES SHALL ONLY BE PERFORMED BY QUALIFIED CONTRACTORS WITH A VALID CALIFORNIA CONTRACTOR A OR C34 LICENSE.
- ALL NEWLY CONSTRUCTED SEWER MAINS AND APPURTENANCES SHALL BE TESTED IN ACCORDANCE WITH APWA SPECIFICATIONS. ALL NEWLY CONSTRUCTED SEWER MAINS, LATERALS AND MANHOLES MUST BE INSPECTED VIA CLOSED CIRCUIT TELEVISION CAMERA BY A NATIONAL ASSOCIATION OF SEWER SERVICE COMPANIES (NASSCO) CERTIFIED TECHNICIAN AND VIDEO SUBMITTED IN A DIGITAL FORMAT TO THE WATER RESOURCES DIVISION FOR REVIEW AND FINAL ACCEPTANCE OF WORK.
- ALL SEWER MAINS SHALL BE VITRIFIED CLAY PIPE (VCP) PIPE OR PVC SDR-26 PIPE. ALL OTHER PIPE MATERIALS REQUIRE SPECIAL REVIEW AND APPROVAL FROM THE WATER RESOURCES DIVISION.
- TRENCH PLATES SHALL BE FLUSH WITH PAVEMENT AND SHALL BE NON-SKID.
- CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES AND POINTS OF CONNECTION PRIOR TO TRENCHING.
- WHEN PUBLIC SEWER FACILITIES ARE LOCATED ON PRIVATE PROPERTY, EASEMENT DOCUMENTS ARE TO BE SUBMITTED TO CITY FOR APPROVAL PRIOR TO A PERMIT BEING ISSUED.
- FINAL ACCEPTANCE WILL NOT OCCUR UNTIL ORIGINAL RECORD DRAWINGS ON MYLAR AND DIGITAL FORMAT ARE DELIVERED TO AND ACCEPTED BY THE CITY'S INSPECTOR. SHOW ALL FIELD CHANGES ON RECORD DRAWINGS.
- ALL SEWER REPAIRS SHALL BE ACCOMPLISHED USING STAINLESS STEEL DOUBLE BANDED COUPLINGS.

**GENERAL NOTES FOR PUBLIC WORKS PERMITTED WORK ON WATER DISTRIBUTION SYSTEMS (STANDARD 1400)**

- CONSTRUCTION AND INSTALLATION OF ALL WATER MAINS AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY OF SANTA ANA STANDARD PLANS AND SPECIFICATIONS. WHERE THE STANDARD PLANS ARE SILENT, CONSTRUCTION AND INSTALLATION OF WATER MAINS AND APPURTENANCES SHALL CONFORM TO THE AMERICAN WATER WORKS ASSOCIATION (AWWA) SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2012 EDITION.
- CONSTRUCTION OF WATER MAINS AND APPURTENANCES SHALL ONLY BE PERFORMED BY QUALIFIED CONTRACTORS WITH A VALID CALIFORNIA CONTRACTOR A OR C34 LICENSE.
- NO PERSON, OTHER THAN CITY OF SANTA ANA WATER RESOURCES DIVISION STAFF CERTIFIED BY THE STATE OF CALIFORNIA AS A WATER DISTRIBUTION OPERATOR, SHALL BE ALLOWED TO OPERATE THE CITY'S WATER SYSTEM VALVES.
- NO PERSON, OTHER THAN CITY OF SANTA ANA WATER RESOURCES DIVISION STAFF CERTIFIED BY THE STATE OF CALIFORNIA AS A WATER DISTRIBUTION OPERATOR, SHALL SHUT WATER SERVICE OFF TO ANY CUSTOMER.
- PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE CITY FOR REVIEW AND APPROVAL "DISINFECTION AND FLUSHING PLAN" PER THE CITY OF SANTA ANA DESIGN GUIDELINES AND STANDARD DRAWINGS.
- ALL NEWLY CONSTRUCTED WATER MAINS AND APPURTENANCES SHALL BE DISINFECTED AND TESTED IN ACCORDANCE WITH AMERICAN WATER WORKS ASSOCIATION STANDARD C600S, PRIOR TO CONNECTING TO THE CITY'S WATER DISTRIBUTION SYSTEM. DISINFECTION TESTING RESULTS SHALL BE SUBMITTED TO THE WATER RESOURCES DIVISION FOR REVIEW AND APPROVAL PRIOR TO CONNECTING TO THE CITY'S WATER DISTRIBUTION SYSTEM.
- WATER MAINS WILL BE HYDROSTATIC TESTED AT 200 PSI FOR 2 HOURS. NEW WATER MAINS CANNOT BE TESTED AGAINST AN EXISTING VALVE BUT CAN BE TESTED USING A TEST PLATE.
- REQUESTS TO SHUT-DOWN THE WATER DISTRIBUTION SYSTEM FOR TIE-INS OR OTHER PURPOSES SHALL BE COORDINATED WITH THE WATER RESOURCES DIVISION STAFF AT LEAST 2 WEEKS IN ADVANCE THROUGH THE CITY INSPECTOR. ALL CUSTOMERS AFFECTED BY THE PROPOSED SHUT DOWN SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE BY THE CONTRACTOR.
- THE CITY OF SANTA ANA WATER RESOURCES DIVISION CANNOT GUARANTEE A COMPLETE SHUTDOWN OF EXISTING MAINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND ISOLATION OF CONSTRUCTION FOR TESTING OR ANY OTHER PURPOSES.
- ALL FIRE HYDRANTS WHICH ARE OUT OF SERVICE OR NEW FIRE HYDRANTS WHICH HAVE NOT BEEN ACCEPTED FOR SERVICE SHALL BE COVERED WITH A SACK INDICATING THAT THE HYDRANTS ARE NOT IN SERVICE.
- MAINTAINING WATER SERVICE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR FOR ANY SHUTDOWN LASTING LONGER THAN FOUR (4) HOURS. METHOD OF PROVIDING TEMPORARY SERVICE MUST BE APPROVED BY THE WATER RESOURCES DIVISION. THE WATER SHALL BE SAFE FOR DRINKING IN ACCORDANCE WITH STATE OF CALIFORNIA WATER RESOURCES CONTROL BOARD (SWRCB) DRINKING WATER PROGRAM (DWP).
- WATER METER WILL NOT BE INSTALLED NOR WATER TURNED ON UNTIL THE BACKFLOW DEVICES REQUIRED FOR THE BUILDING AND IRRIGATION SYSTEMS HAVE BEEN INSTALLED, TESTED, APPROVED, AND CERTIFIED, AND APPROVED AND SIGNED OFF BY THE CITY. CONTACT WATER RESOURCES DIVISION AT 714-647-3320.
- ALL WATER MAINS SHALL BE AWWA C-900 PVC, DR14 PIPE OR AWWA C-151 DUCTILE IRON PIPE. ALL OTHER PIPE MATERIALS REQUIRE SPECIAL REVIEW AND APPROVAL FROM THE WATER RESOURCES DIVISION.
- WATER MAINS SHALL HAVE 36" MINIMUM COVER TO FINISHED GRADE. ANY DEVIATION FROM THIS REQUIREMENT REQUIRES APPROVAL FROM THE WATER RESOURCES DIVISION.
- CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES AND POINTS OF CONNECTION PRIOR TO TRENCHING.
- PRIVATE WATER APPURTENANCES SUCH AS BACKFLOW PREVENTERS, FIRE HYDRANTS AND STANDPIPES, AND VALVES SHALL BE PAINTED AS FOLLOWS:
  - DOMESTIC WATER: BLUE
  - POTABLE IRRIGATION: GREEN
  - RECYCLED IRRIGATION: PURPLE
  - FIRE PROTECTION: OSHA SAFETY RED
- DO NOT CUT OR SNAP CUT OR MILL ASBESTOS CEMENT PIPE. WHERE JOINING EXISTING ASBESTOS CEMENT PIPE, EXPOSE SIX FEET IN EACH DIRECTION, LOOKING FOR THE NEAREST JOINT AND JOIN TO NEW PIPE WITH A PROPERLY DIMENSIONED ADAPTER PER STANDARD PLAN NUMBER 1443.
- DO NOT TAP EXISTING MAINS WITHOUT THE PRESENCE OF A CERTIFIED PUBLIC WORKS INSPECTOR. PRESSURE TEST TAPPING SLEEVE IN THE PRESENCE OF A CERTIFIED PUBLIC WORKS INSPECTOR BEFORE TAPPING EXISTING MAIN.
- FINAL ACCEPTANCE WILL NOT OCCUR UNTIL ORIGINAL RECORD DRAWINGS ON MYLAR AND DIGITAL FILE ARE DELIVERED TO AND ACCEPTED BY THE CITY'S INSPECTOR. SHOW ALL FIELD CHANGES ON RECORD DRAWINGS.
- TRENCH PLATES SHALL BE FLUSH WITH PAVEMENT AND SHALL BE NON-SKID.
- WHEN PUBLIC WATER FACILITIES ARE LOCATED ON PRIVATE PROPERTY, EASEMENT DOCUMENTS ARE TO BE SUBMITTED TO CITY FOR APPROVAL PRIOR TO A PERMIT BEING ISSUED.
- ALL RECYCLED WATER PROJECTS REQUIRE REVIEW AND APPROVAL BY THE WATER RESOURCES DIVISION.
- REMOVE FROM THE FIELD UPPER AND LOWER FIRE HYDRANT DRY BARREL AND 24" X 36" IRON VAULT LID COVERS AND DELIVER UNDAMAGED TO THE CITY WATER RESOURCES DIVISION YARD LOCATED AT 215 S. CENTER STREET. PRIOR NOTIFICATION OF THE DELIVERY IS REQUIRED AT 714-647-3320.
- WATER MAIN FITTINGS SHALL BE FLANGE OR MECHANICAL JOINTS ONLY, NO PUSH-ON JOINT FITTINGS ALLOWED.
- CONTRACTOR SHALL NOT REMOVE OR DISPOSE EXISTING WATER METERS. CONTRACTOR SHALL APPLY FOR AN ABANDON WATER METER APPLICATION. CONTRACTOR SHALL CONTACT WATER RESOURCES DIVISION AT 714-647-3320 FOR EXISTING METER REMOVALS.
- INSTALLATION OF NEW WATER METER SERVICE CURB STOP SHALL BE DONE AFTER INSTALLATION OF NEW CURB AND GUTTER OR AFTER CONTRACTOR HAS ESTABLISHED THE PROPOSED CURB GRADE BY STAKING OF THE PROPOSED CURB.

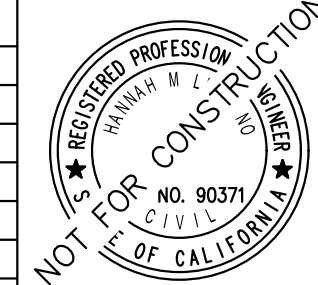
FILE NO.:

R-

**REVISIONS**

**REFERENCES**

**ENGINEERS SEAL**



PREPARED UNDER THE SUPERVISION OF:

HANNAH LUEVANO  
 DESIGNED: HS DRAWN: MH CHECKED: HS

DATE

8/29/2023

REVIEWED FOR CONSTRUCTABILITY AND RECOMMENDED FOR CONSTRUCTION:

JASON GABRIEL  
 PRINCIPAL CIVIL ENGINEER RCE NO.: 62968

DATE

xx/yyyy

**PROPOSED DRIVE-THRU RESTAURANT**

2109 E SANTA CLARA AVENUE  
 SANTA ANA, CA 92705  
**PUBLIC WORKS AGENCY**  
 CITY OF SANTA ANA  
**PUBLIC GENERAL NOTES**

SHEET NO. C2.1



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PROJECT NO. YY-NNNN: PROJECT TITLE PROJECT LIMITS

**GENERAL EROSION CONTROL NOTES**

1. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES OR WIND.
2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
3. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND MUST NOT CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
4. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
5. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
6. SEDIMENTS AND OTHER MATERIALS MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEEPED UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR ANY OTHER MEANS.
7. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
8. STORM WATER POLLUTION CONTROL REQUIREMENTS MUST BE INTEGRATED ONTO THE EROSION CONTROL PLANS FOR ANY CONSTRUCTION BETWEEN OCTOBER 1 AND APRIL 15. THE FOLLOWING NOTES AND BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORM WATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA 1993, OR THE LATEST REVISED EDITION MAY APPLY DURING THE CONSTRUCTION OF PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY CITY INSPECTIONS).
9. TEMPORARY EROSION CONTROL DEVICES SHOWN ON THE PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED AS AND WHEN THE CONTRACTOR AND/OR THE INSPECTOR SO DIRECTS AS THE WORK PROGRESSES.
10. ALL STANDARDS REFERENCED FROM 2018 CASQA CONSTRUCTION BMP BOOK.

**MAINTENANCE NOTES**

- ALL MEASURES STATED ON THE EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES MAY BE CHECKED BY A QUALIFIED PERSON ON A SCHEDULE THAT MEETS OR EXCEEDS THE GOVERNING REQUIREMENTS, AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:
1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
  2. FILTREXX SILT/SOXXS OR APPROVED EQUAL SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE FILTREXX SILT/SOXXS OR APPROVED EQUAL WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FILTREXX SILT/SOXX OR APPROVED EQUAL.
  3. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
  4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
  5. ALL MAINTENANCE OPERATIONS SHALL BE DONE IN A TIMELY MANNER.

**LEGEND**

- CENTER LINE
- PROPERTY LINE
- APPROXIMATE CIVIL LIMIT OF WORK LINE
- FILTREXX SILT/SOXX OR APPROVED EQUAL
- CONSTRUCTION FENCE WITH GREEN SCREEN
- PROPOSED STORM DRAIN LINES
- PROPOSED STORM DRAIN INLET
- INLET PROTECTION
- CONSTRUCTION ENTRANCE
- STOCKPILE AREA
- SANITARY AREA, TRASH STORAGE, HAZARDOUS MATERIAL, CONCRETE MANAGEMENT, VEHICLE MAINTENANCE AND EQUIPMENT STORAGE AREA
- MATERIAL STORAGE AND DELIVERY
- DIRECTION OF FLOW

**BMP NOTES**

THE FOLLOWING BMP'S AS OUTLINED IN, BUT NOT LIMITED TO, THE CALIFORNIA STORMWATER BMP HANDBOOK DATED NOVEMBER 2018, OR THE LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THE PROJECT. ADDITIONAL MEASURES MAY BE REQUIRED AS NEEDED:

- EC-1, SCHEDULING
- EC-2, PRESERVATION OF EXISTING VEGETATION
- WE-1, WIND EROSION CONTROL
- NS-1, WATER CONSERVATION PRACTICES
- NS-3, PAVING AND GRINDING OPERATIONS
- NS-7, POTABLE WATER IRRIGATION
- NS-12, CONCRETE CURING
- NS-13, CONCRETE FINISHING
- WM-4, SPILL PREVENTION AND CONTROL
- WM-7, CONTAMINATED SOIL MANAGEMENT
- WM-9, SANITARY/SEPTIC WASTE MANAGEMENT
- WM-10, LIQUID WASTE MANAGEMENT
- SE-7, STREET SWEEPING AND VACUUMING

CONTRACTOR RESPONSIBLE FOR TRAFFIC CONTROL AND PEDESTRIAN CONTROL WHILE PERFORMING WORK IN THE PUBLIC RIGHT-OF-WAY.

SITE PREPARATION SHOULD BE IN ACCORDANCE WITH GEOTECHNICAL INVESTIGATION

CONTRACTOR TO USE BEST MANAGEMENT PRACTICES TO ENSURE COMPLIANCE WITH NPDES AND WATER MANAGEMENT DISTRICT REGULATIONS FOR STORMWATER DISCHARGE FROM CONSTRUCTION ACTIVITIES AND DEWATERING OPERATIONS.

**EROSION CONTROL NOTES**

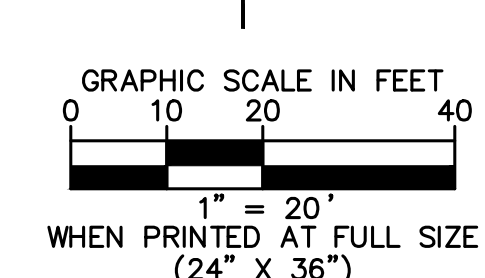
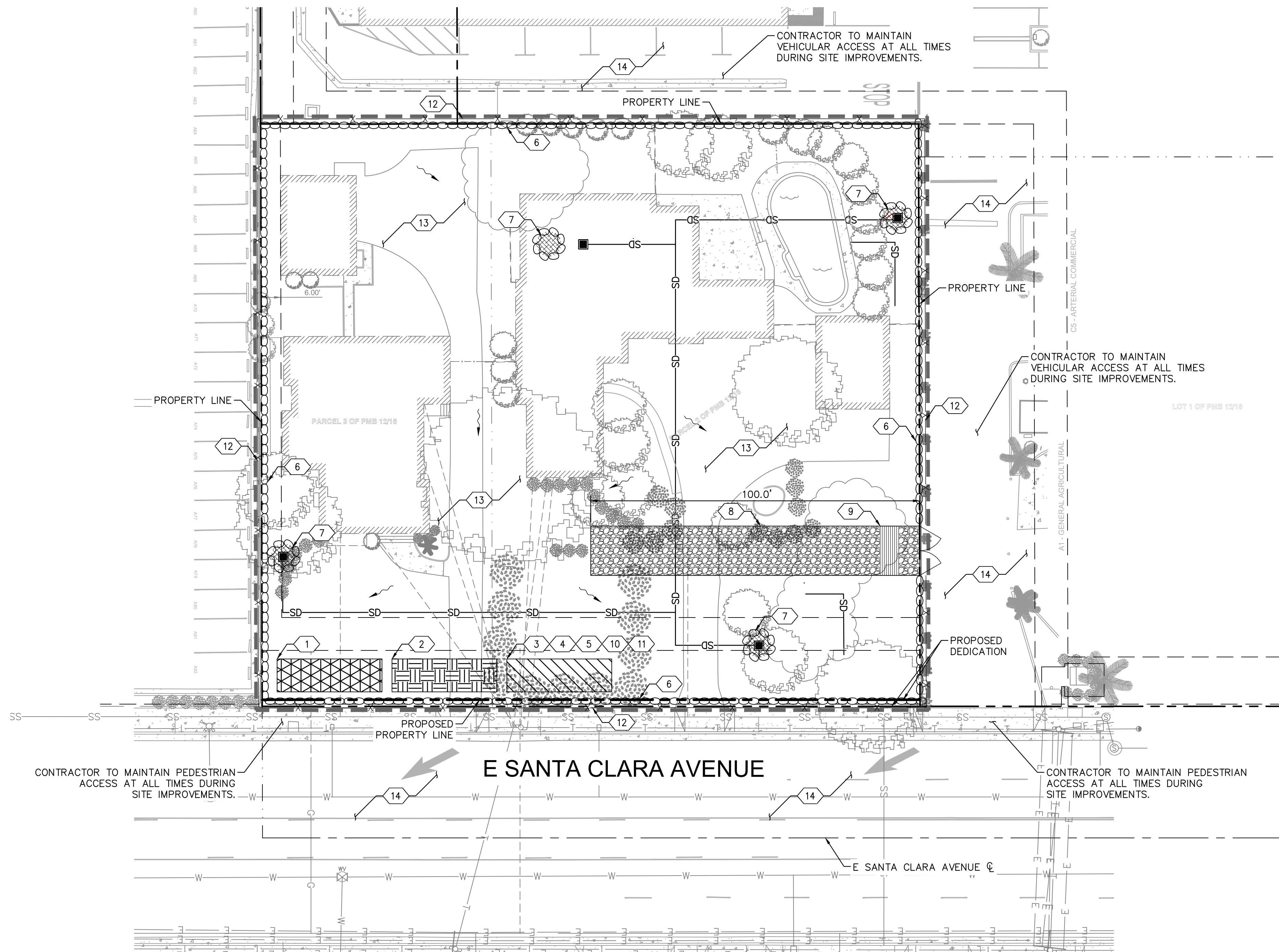
- 1 WM-1, MATERIAL DELIVERY AND STORAGE.
- 2 WM-3, STOCKPILE MANAGEMENT, CONTRACTOR TO SET UP STOCKPILE AREA.
- 3 WM-5, SANITARY AREA.
- 4 WM-6, HAZARDOUS WASTE MANAGEMENT.
- 5 WM-8, CONCRETE WASTE MANAGEMENT.
- 6 SE-5, INSTALL FILTREXX SILT/SOXX OR APPROVED EQUAL. REFER TO SHEET C3.1 FOR MORE INFORMATION.
- 7 SE-10, STORM DRAIN INLET PROTECTION. INSTALL PIG SEDIMENT DRAIN INLET FILTER AT ALL DROP INLETS AND ETEC CURB INLET GUARD AT CURB INLETS OR APPROVED EQUAL.
- 8 TC-1, STABILIZED CONSTRUCTION ENTRANCE/EXIT; REFER TO DETAIL 1, SHEET C3.1.
- 9 TC-3, ENTRANCE/OUTLET TIRE WASH; REFER TO DETAIL 2, SHEET C3.1.
- 10 NS-10, VEHICLE AND EQUIPMENT MAINTENANCE.
- 11 SD-32, TRASH STORAGE AREA.
- 12 CONSTRUCTION FENCE WITH GREEN SCREEN
- 13 WE-1, WIND EROSION CONTROL
- 14 SE-7, VACUUM SWEEPING OF ADJACENT STREETS.

**SEQUENCE OF CONSTRUCTION**

UPON IMPLEMENTATION AND INSTALLATION OF THE FOLLOWING AREAS: TRAILER, PARKING, LAYDOWN, PORTA-POTTY, WHEEL WASH, CONCRETE WASHOUT, FUEL AND MATERIAL STORAGE CONTAINERS, SOLID WASTE CONTAINERS, ETC., IMMEDIATELY DENOTE THEM ON THE SITE MAPS AND NOTE ANY CHANGES IN LOCATION AS THEY OCCUR THROUGHOUT THE CONSTRUCTION PROCESS.

- PHASE 1:
1. CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE (1) AND CHAIN LINK FENCE WITH GREEN SCREEN AND THEN FILTREXX SILT/SOXX OR APPROVED EQUAL (OR GRAVEL BAGS) WHERE SHOWN ON PLAN.
  2. INSTALL INLET PROTECTION AT EXISTING INLET(S).
  3. PREPARE CLEARING AND GRUBBING OF THE SITE, IF APPLICABLE.
- PHASE 2:
4. PERFORM MASS GRADING, ROUGH GRADE TO ESTABLISH PROPOSED DRAINAGE PATTERNS.
  5. START CONSTRUCTION OF THE BUILDING PAD AND STRUCTURES.
  6. TEMPORARILY SEED WITH PURE LIVE SEED, THROUGHOUT CONSTRUCTION, DISTURBED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE OR AS REQUIRED BY GENERIC PERMIT.

**SEQUENCE OF CONSTRUCTION GENERAL NOTE:**  
THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE IS A GENERAL OVERVIEW AND IS INTENDED TO CONVEY THE GENERAL CONCEPTS OF THE EROSION CONTROL DESIGN AND SHOULD NOT BE RELIED UPON FOR CONSTRUCTION PURPOSES. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETAILED PHASING AND CONSTRUCTION SEQUENCING NECESSARY TO CONSTRUCT THE PROPOSED IMPROVEMENTS INCLUDED IN THESE PLANS. THE CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IMMEDIATELY, PRIOR TO AND/OR DURING CONSTRUCTION IF ANY ADDITIONAL INFORMATION ON THE CONSTRUCTION SEQUENCE IS NECESSARY. CONTRACTOR IS SOLELY RESPONSIBLE FOR COMPLYING WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND ALL OTHER APPLICABLE LAWS.



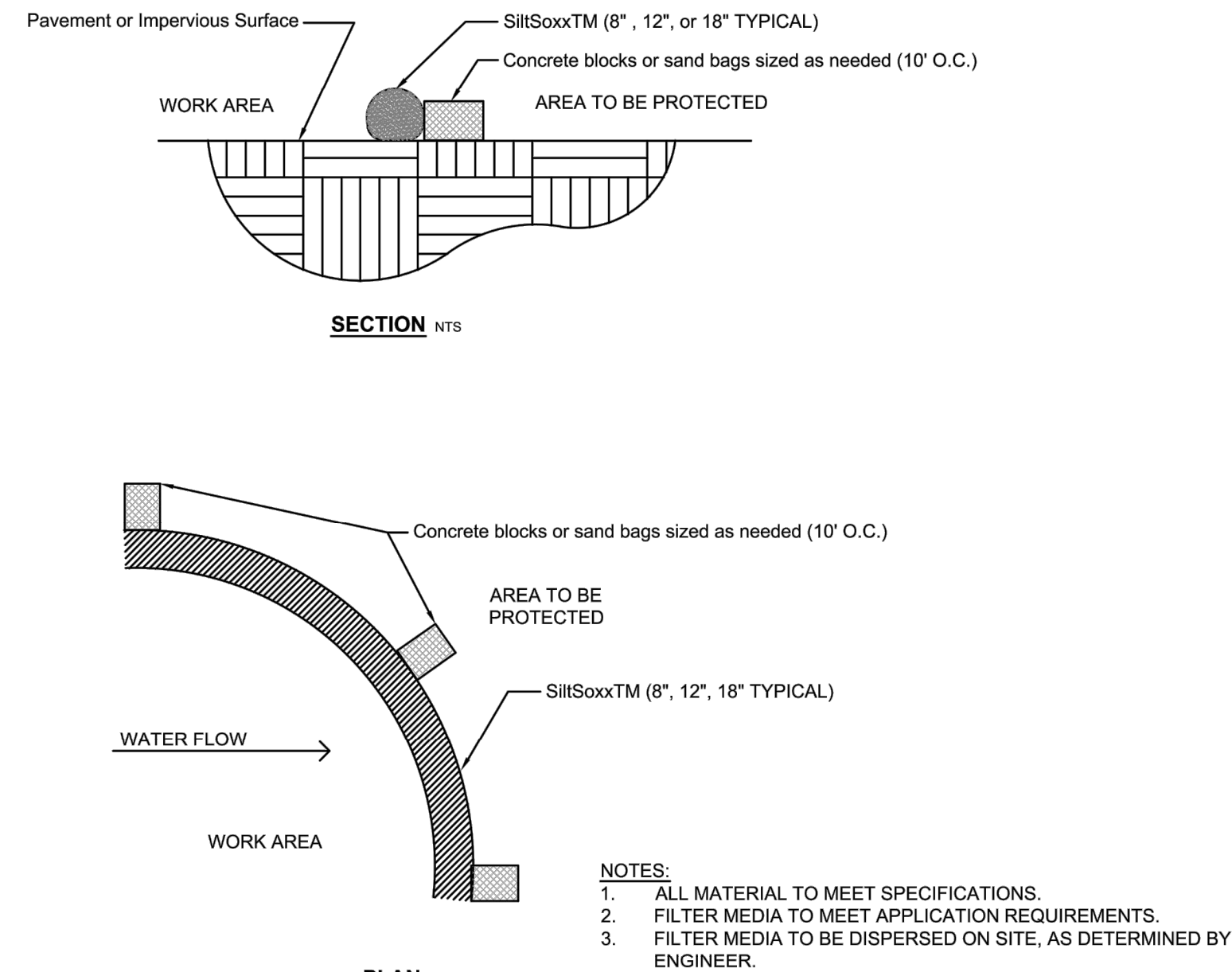
**Underground Service Alert**  
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**NOTICE TO CONTRACTOR**  
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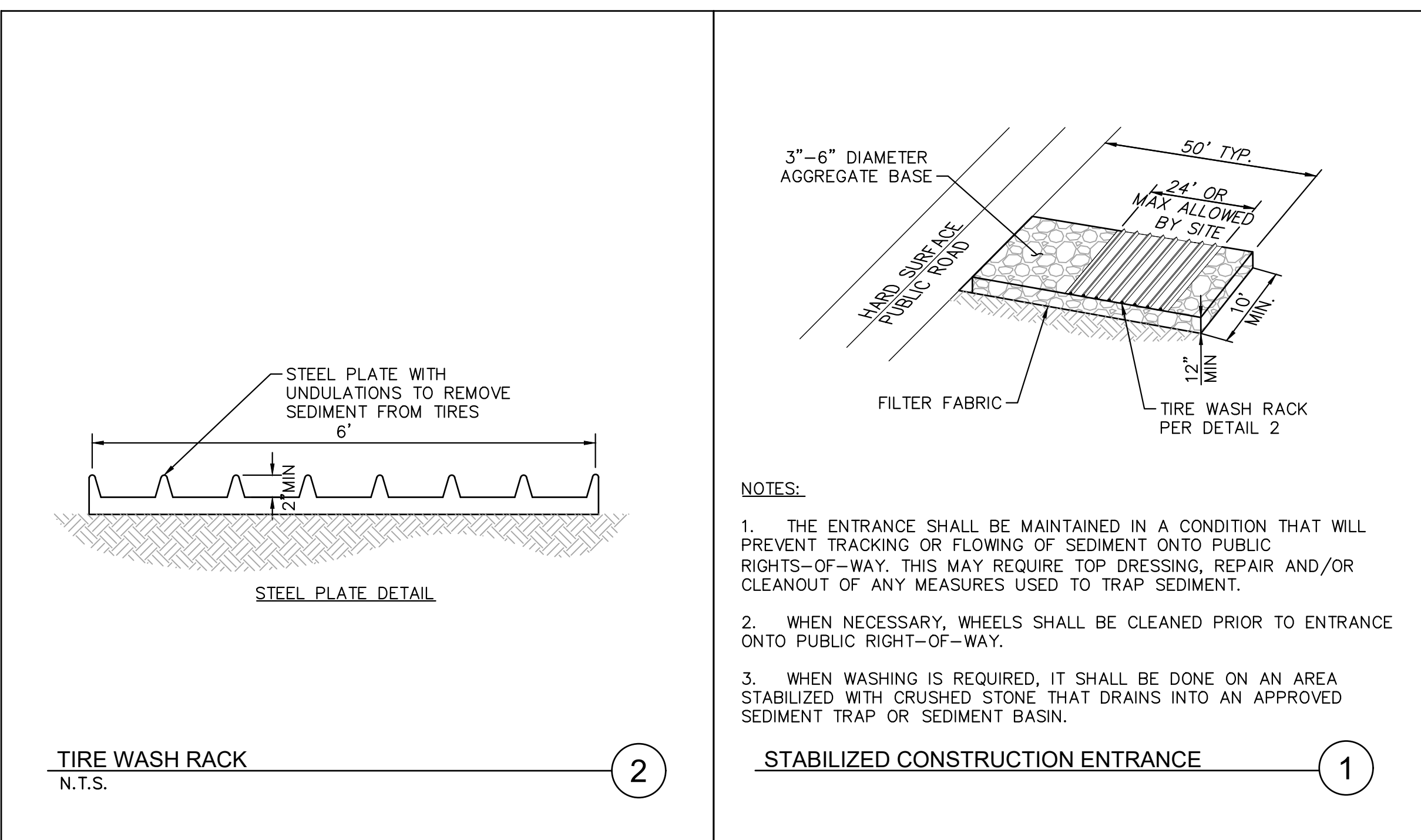
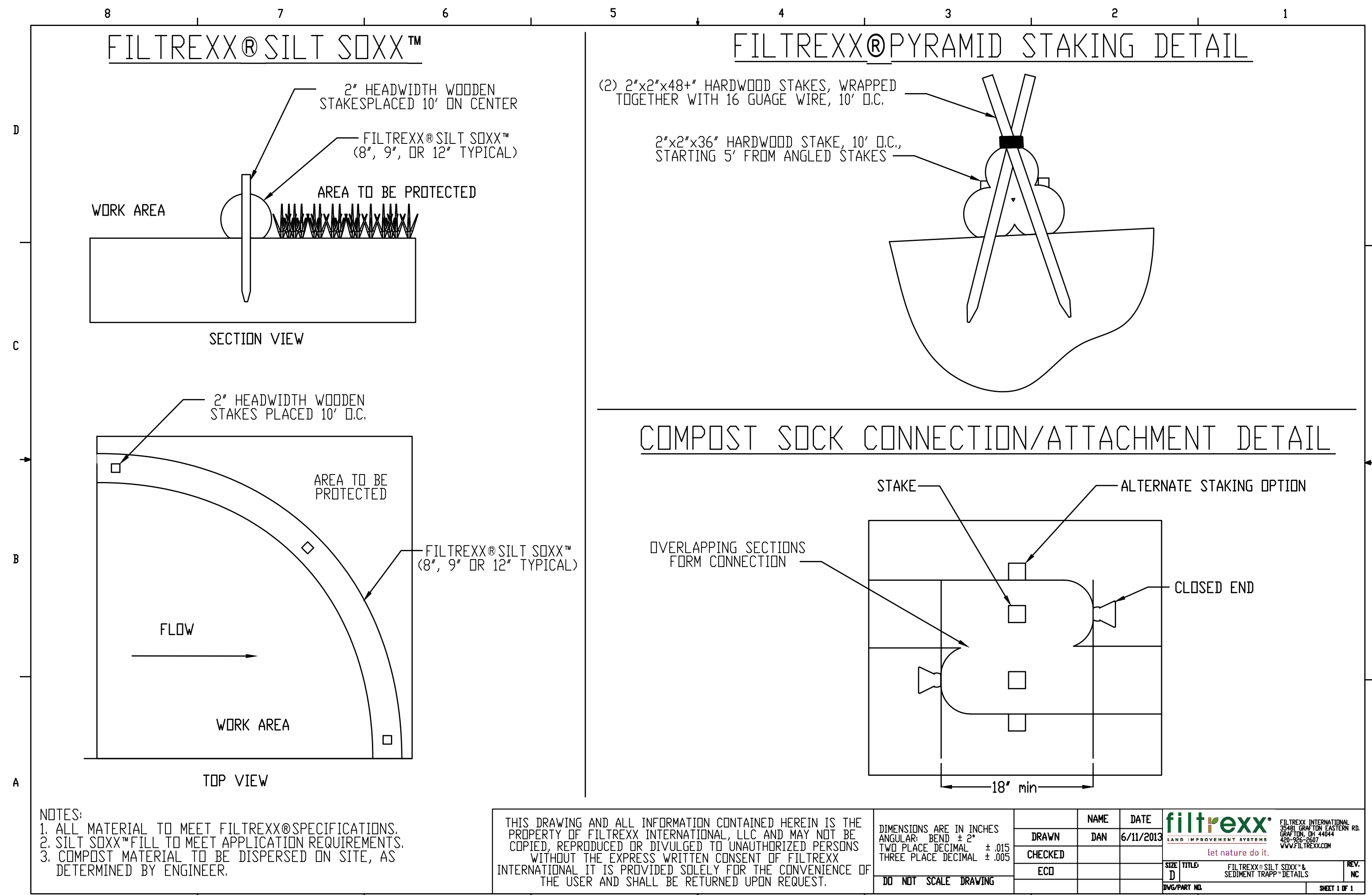
FILE NO.:	<b>REVISIONS</b>			<b>REFERENCES</b>			ENGINEERS SEAL  PREPARED UNDER THE SUPERVISION OF: HANNAH LUEVANO SENIOR CIVIL ENGINEER RCE NO.: 90371 DESIGNED: HS DRAWN: MH CHECKED: HS REVIEWED FOR CONSTRUCTABILITY AND RECOMMENDED FOR CONSTRUCTION: JASON GABRIEL PRINCIPAL CIVIL ENGINEER RCE NO.: 62968	DATE	<b>PROPOSED DRIVE-THRU RESTAURANT</b> 2109 E SANTA CLARA AVENUE SANTA ANA, CA 92705 <b>PUBLIC WORKS AGENCY</b> CITY OF SANTA ANA EROSION CONTROL PLAN	SHEET NO.
	NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED		6/29/2023		C3.0

PROJECT NO. YY-NMNN-PROJECT TITLE PROJECT LIMITS



**SiltSoxxTM for Sediment Control on Pavement**  
NTS

- NOTES:
1. ALL MATERIAL TO MEET SPECIFICATIONS.
  2. FILTER MEDIA TO MEET APPLICATION REQUIREMENTS.
  3. FILTER MEDIA TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.



- NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
  2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
  3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

**Underground Service Alert**  
of Southern California  
CALL: TOLL FREE 1-800-422-4133  
TWO WORKING DAYS BEFORE YOU DIG

**NOTICE TO CONTRACTOR**  
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REVISIONS				REFERENCES			
NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED	BENCHMARK NO.:	ELEV.:
						3C-26-06	173.744' NAVD88
						THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET.	
						THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14566, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.	
						CONSTRUCTION COMPLETED:	

	PREPARED UNDER THE SUPERVISION OF: HANNAH LUEVANO SENIOR CIVIL ENGINEER RCE NO.: 90371 DESIGNED: HS DRAWN: MH CHECKED: HS	DATE: 6/29/2023
	REVIEWED FOR CONSTRUCTIBILITY AND RECOMMENDED FOR CONSTRUCTION: JASON GABRIEL PRINCIPAL CIVIL ENGINEER RCE NO.: 62968	DATE: XX/YYYY

**PROPOSED DRIVE-THRU RESTAURANT**  
2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705  
**PUBLIC WORKS AGENCY**  
CITY OF SANTA ANA

**EROSION CONTROL DETAILS**

SHEET NO. **C3.1**

PROJECT NO. YY-NMNN: PROJECT TITLE PROJECT LIMITS

**GENERAL DEMOLITION NOTES**

1. THE CONTRACTOR SHALL CLEAR THE PROJECT SITE AREA WITHIN THE CONFINES OF THE DEMOLITION LIMIT LINE. THE CONTRACTOR SHALL CAP IN PLACE ALL EXISTING UTILITIES AT THE DEMOLITION LIMIT LINE, UNLESS NOTED ON THE PLAN. THE CONTRACTOR SHALL DEMOLISH AND REMOVE FROM THE SITE ALL EXISTING UTILITY STRUCTURES, PLANTERS, TREES, AND ALL OTHER SITE FEATURES, UNLESS OTHERWISE NOTED ON THE PLAN.
2. DEMOLITION AND REMOVAL OF PAVEMENT INCLUDES PAVEMENT THICKNESS AS WELL AS BASE COURSE THICKNESS.
3. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIAL.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND SHALL PAY ALL FEES NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF DEMOLITION WORK.
6. THE CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING ABOVE AND UNDERGROUND UTILITIES. LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND ARE SHOWN FOR GENERAL INFORMATION ONLY.
7. DAMAGE TO ANY EXISTING UTILITIES AND SERVICES TO REMAIN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
8. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED TO PREVENT DEBRIS AND UNSUITABLE MATERIALS FROM ENTERING STORM DRAINS, SANITARY SEWERS AND STREETS.
9. DUST CONTROL MEASURES SHALL BE IMPLEMENTED DURING DEMOLITION.
10. DEMOLITION IS LIMITED TO WITHIN THE DEMOLITION LIMIT LINE UNLESS OTHERWISE NOTED.
11. CONTRACTOR SHALL REMOVE DEMOLISHED MATERIALS FROM THE SITE AS WORK PROGRESSES.
12. ALL DEMOLITION SHALL COMPLY WITH CHAPTER 24 AND ARTICLE 87 OF THE CALIFORNIA FIRE CODE.
13. CONTRACTOR TO USE CARE IN HANDLING DEBRIS FROM SITE TO ENSURE THE SAFETY OF THE PUBLIC. HAUL ROUTE TO BE CLOSELY MONITORED FOR DEBRIS OR MATERIALS TRACKED ONTO ADJOINING ROADWAYS, SIDEWALKS, ETC. ROADWAYS AND WALKWAYS TO BE CLEARED DAILY OR AS NECESSARY TO MAINTAIN PUBLIC SAFETY.
14. CONTRACTOR TO USE CARE IN HANDLING DEBRIS FROM SITE TO ENSURE THE SAFETY OF THE PUBLIC. HAUL ROUTE TO BE CLOSELY MONITORED FOR DEBRIS OR MATERIALS TRACKED ONTO ADJOINING ROADWAYS, SIDEWALKS, ETC. ROADWAYS AND WALKWAYS TO BE CLEARED DAILY OR AS NECESSARY TO MAINTAIN PUBLIC SAFETY.
15. SEE SHEET C3.0 FOR REMAINING INLET PROTECTION AND EROSION PREVENTION.
16. CONTRACTOR TO INSTALL CHAIN LINK FENCE WITH MESH SCREEN TO PROTECT PUBLIC FROM ENTERING CONSTRUCTION AREA.
17. CONTINUOUS ACCESS SHALL BE MAINTAINED FOR SURROUNDING PROPERTIES AT ALL TIMES DURING DEMOLITION OF EXISTING FACILITIES.
18. ALL MATERIAL REMOVED FROM THIS SITE BY THE CONTRACTOR SHALL BE DISPOSED OF BY THE CONTRACTOR IN A LEGAL MANNER.
19. REFER TO THE TOPOGRAPHIC SURVEY FOR ADDITIONAL DETAILS OF EXISTING STRUCTURES, ETC. LOCATED WITHIN THE PROJECT SITE. UNLESS OTHERWISE NOTED, ALL EXISTING BUILDINGS, STRUCTURES, SLABS, CONCRETE, ASPHALT, DEBRIS PILES, SIGNS, AND ALL APPURTENANCES ARE TO BE REMOVED FROM THE SITE BY THE CONTRACTOR AND PROPERLY DISPOSED OF IN A LEGAL MANNER AS PART OF THIS CONTRACT. SOME ITEMS TO BE REMOVED MAY NOT BE DEPICTED ON THE TOPOGRAPHIC SURVEY. REFER TO THIS PLAN FOR THE LIMITS OF ASPHALT REMOVAL. IF ANY ITEMS ARE IN QUESTION, THE CONTRACTOR SHALL CONTACT THE OWNER PRIOR TO REMOVAL OF SAID ITEMS.
20. THE CONTRACTOR SHALL REFER TO THIS PLAN AND LANDSCAPE PLAN FOR DEMOLITION/PRESERVATION OF EXISTING TREES. ALL TREES NOT SPECIFICALLY SHOWN TO BE PRESERVED OR RELOCATED SHALL BE REMOVED AS A PART OF THIS CONTRACT. TREE PROTECTION FENCING SHALL BE INSTALLED AS NECESSARY PRIOR TO ANY DEMOLITION.
21. CONTRACTOR SHALL ADJUST GRADE OF ANY RIMS/COVERS TO THE FINISHED ELEVATIONS OF EXISTING UTILITIES TO REMAIN.
22. ALL EXISTING UTILITIES SHALL BE DEMOLISHED AND CAPPED AT THE PROPERTY LINE.
23. REFER TO DEMOLITION NOTES ON SHEET C2.0

**LEGEND**

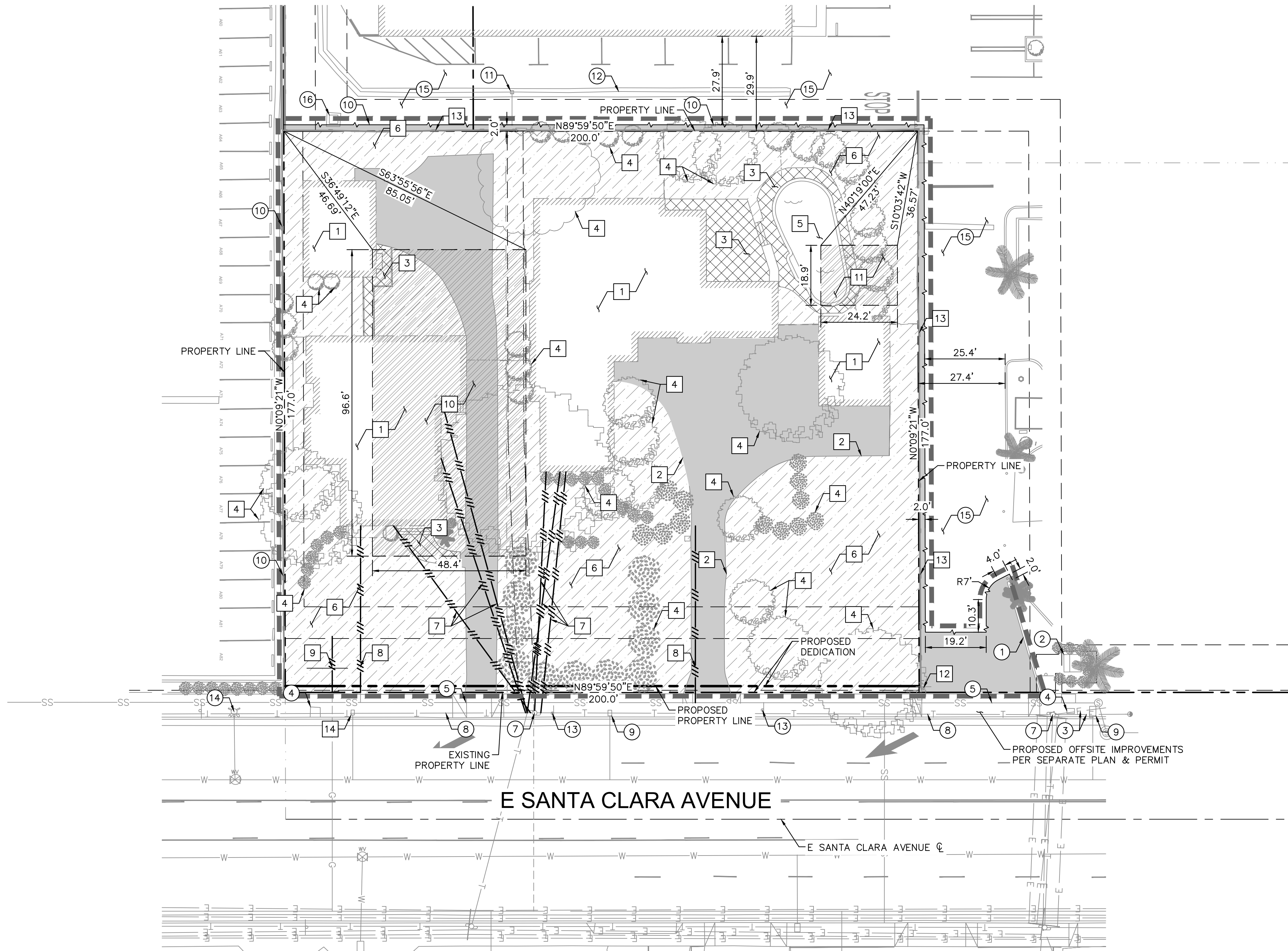
- CENTER LINE
- PROPERTY LINE
- RIGHT-OF-WAY LINE / LEASE LINE
- EASEMENT LINE / SETBACK LINE
- APPROXIMATE DEMOLITION LIMIT LINE ON-SITE
- CONSTRUCTION FENCE WITH GREEN SCREEN
- EXISTING STORM DRAIN LINE
- EXISTING SEWER LINE
- EXISTING GAS LINE
- EXISTING WATER LINE
- EXISTING ELECTRICAL LINE
- EXISTING TELECOMMUNICATION LINE
- EXISTING OVERHEAD COMMUNICATION LINE
- DEMOLISH EXISTING UTILITY
- LIMITS OF EARTHWORK PREPARATION FOR PROPOSED BUILDING AND SITE WALLS, WITH LATERAL OFFSET OF 2 FEET. REFER TO EARTHWORK SECTION OF GEOTECHNICAL REPORT, PAGE 6 FOR MORE INFORMATION.
- EXISTING ASPHALT PAVEMENT TO BE REMOVED
- EXISTING LANDSCAPE TO BE REMOVED
- EXISTING CONCRETE PAVEMENT TO BE REMOVED

**DEMOLITION NOTES**

- 1 REMOVE EXISTING BUILDING AND SURROUNDING FEATURES. UTILITIES TO BE CAPPED FOR FUTURE CONNECTION. FOUNDATION REMOVALS PER GEOTECHNICAL REPORT.
- 2 REMOVE EXISTING CURB / CURB & GUTTER.
- 3 REMOVE EXISTING CONCRETE.
- 4 REMOVE EXISTING TREE. CONTRACTOR TO CONFIRM WITH LANDSCAPE PLAN ON LIMITS OF LANDSCAPE DEMOLITION.
- 5 REMOVE EXISTING POOL.
- 6 REMOVE EXISTING LANDSCAPE AND ALL IRRIGATION LINES, DRIPS, VALVES AND ASSOCIATED EQUIPMENT AS REQUIRED. REFER TO LANDSCAPE PLANS FOR MORE INFORMATION ON LIMITS OF LANDSCAPE REMOVAL. CONTRACTOR TO FIELD CONFIRM IRRIGATION ROUTING AND COORDINATE SHUTDOWNS/RELOCATIONS WITH ONSITE SHOPPING CENTER MAINTENANCE PERSONNEL.
- 7 REMOVE EXISTING TELECOMMUNICATION LINE.
- 8 REMOVE EXISTING SANITARY SEWER LINE.
- 9 REMOVE EXISTING GAS LINE.
- 10 LIMITS OF EARTHWORK PREPARATION FOR PROPOSED BUILDING (INCLUDES 5' LATERAL DISTANCE BEYOND PERIMETER OF PROPOSED BUILDING).
- 11 LIMITS OF EARTHWORK PREPARATION FOR PROPOSED TRASH ENCLOSURE FOOTPRINT (INCLUDES 5' LATERAL DISTANCE BEYOND PERIMETER OF PROPOSED TRASH ENCLOSURE).
- 12 REMOVE EXISTING SIGN.
- 13 REMOVE EXISTING CMU WALL.
- 14 REMOVE EXISTING WATER METER.

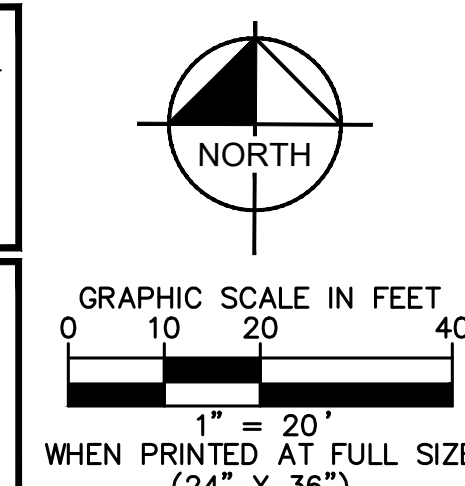
**PROTECTION NOTES**

- 1 PROTECT-IN-PLACE EXISTING CURB.
- 2 PROTECT-IN-PLACE EXISTING TRANSFORMER AND ELECTRICAL APPURTENANCES.
- 3 PROTECT-IN-PLACE EXISTING ELECTRICAL LINE.
- 4 PROTECT-IN-PLACE EXISTING TELECOM CABINET.
- 5 PROTECT-IN-PLACE EXISTING SANITARY SEWER LINE.
- 6 PROTECT-IN-PLACE EXISTING GAS LINE.
- 7 PROTECT-IN-PLACE EXISTING POWER POLE.
- 8 PROTECT-IN-PLACE EXISTING TELECOMMUNICATION LINE.
- 9 PROTECT-IN-PLACE EXISTING WATER LINE AND WATER APPURTENANCES.
- 10 PROTECT-IN-PLACE EXISTING CMU WALL.
- 11 PROTECT-IN-PLACE EXISTING STORM DRAIN INLET.
- 12 PROTECT-IN-PLACE EXISTING VALLEY GUTTER.
- 13 PROTECT-IN-PLACE EXISTING SIGN.
- 14 PROTECT-IN-PLACE EXISTING FIRE HYDRANT.
- 15 PROTECT-IN-PLACE EXISTING ASPHALT CONCRETE.
- 16 PROTECT-IN-PLACE EXISTING ELECTRICAL VAULT.



**EXISTING UTILITY NOTE**  
 THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED ON AVAILABLE RECORDS. THE CONTRACTOR MUST FIELD DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED UTILITIES TO ENGINEER PRIOR TO INSTALLATION OF ANY PIPING.

**IRRIGATION NOTE**  
 CONTRACTOR TO CAP EXISTING IRRIGATION SYSTEM AND REMOVE IRRIGATION SYSTEM AS NEEDED FOR NEW CONSTRUCTION. CONTRACTOR TO MAINTAIN THAT KOHL'S IRRIGATION WILL CONTINUE TO WORK PROPERLY AFTER DEMOLITION OF LINES WITHIN THE CONSTRUCTION AREA.



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REVISIONS			
NUMBER	DATE	INITIALS	DESCRIPTION

REFERENCES	
BENCHMARK NO.: 3C-26-06	ELEV.: 173.744' NAVD88
THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET.	
THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14566, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.	
CONSTRUCTION COMPLETED:	

**ENGINEERS SEAL**

PREPARED UNDER THE SUPERVISION OF:  
 HANNAH LUEVANO  
 SENIOR CIVIL ENGINEER RCE NO.: 90371  
 DESIGNED: HS DRAWN: MH CHECKED: HS

REVIEWED FOR CONSTRUCTION:  
 JASON GABRIEL  
 PRINCIPAL CIVIL ENGINEER RCE NO.: 62968

DATE: 6/29/2023

DATE: XX/YYYY










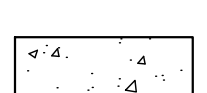
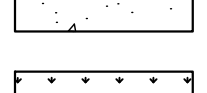



**PROPOSED DRIVE-THRU RESTAURANT**  
 2109 E SANTA CLARA AVENUE  
 SANTA ANA, CA 92705  
**PUBLIC WORKS AGENCY**  
 CITY OF SANTA ANA

**DEMOLITION PLAN**

SHEET NO. C4.0

PROJECT NO. YY-NNNN-PROJECT TITLE PROJECT LIMITS

**LEGEND**

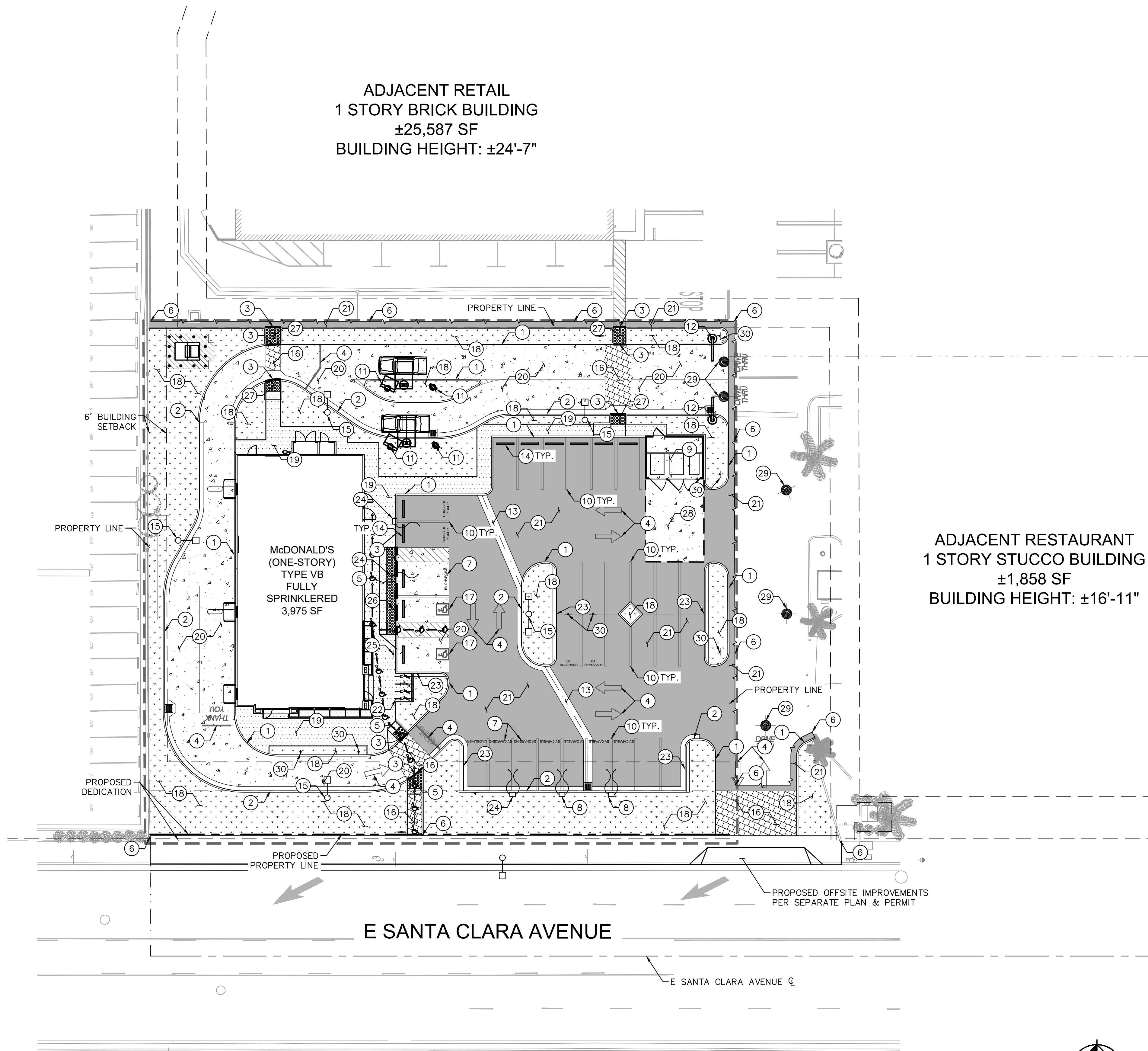
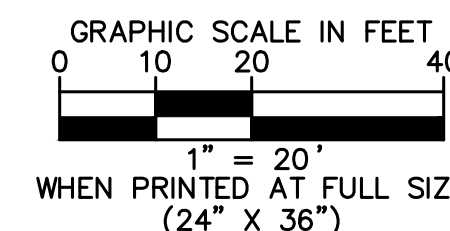
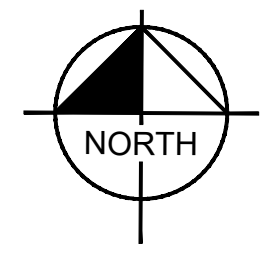
-  CENTER LINE
-  PROPERTY LINE
-  DEDICATION LINE
-  EASEMENT LINE / SETBACK LINE
-  APPROXIMATE LIMIT OF WORK LINE
-  0" CURB FACE
-  PROPOSED LIGHT POLE. REFER TO ELECTRICAL PLANS FOR MORE INFORMATION.
-  PARKING STALL COUNT
-  STANDARD DUTY CONCRETE PAVEMENT. SECTION PER DETAIL 1, SHEET C8.0. SCORING PATTERN AND FINISH PER LANDSCAPING PLAN.
-  HEAVY DUTY CONCRETE PAVEMENT. THICKENED EDGE PER DETAIL 2, SHEET C8.0 AT ALL EDGE CONDITIONS. PRIOR TO BIDDING, CONTRACTOR SHALL CONFIRM WITH MCDONALD'S OWNER/OPERATOR AND/OR MCDONALD'S AREA CONSTRUCTION MANAGER IF DRIVE-THROUGH CONCRETE WILL BE STAINED. IF DRIVE-THROUGH CONCRETE WILL BE STAINED, CONTRACTOR SHALL USE JET BLACK BY DAVIS COLORS OR SPECIFICATION PER OWNER OR ACM.
-  LANDSCAPE/PLANTER AREA. REFER TO LANDSCAPE PLANS FOR MORE INFORMATION.
-  HEAVY DUTY ASPHALT PAVEMENT. SECTION PER DETAIL 1, SHEET C8.0.
-  DETECTABLE WARNING SYSTEM
-  ENHANCED DECORATIVE PAVING

**CONSTRUCTION NOTES**

- 1 CONSTRUCT CONCRETE CURB PER DETAIL 4, SHEET C8.0.
- 2 CONSTRUCT CONCRETE CURB AND GUTTER PER DETAIL 6, SHEET C8.0.
- 3 CONSTRUCT 0" CONCRETE CURB PER DETAIL 5, SHEET C8.0.
- 4 INSTALL PAVEMENT MARKING ARROW PER DETAIL 10, SHEET C8.0.
- 5 CONSTRUCT ACCESSIBLE CURB RAMP PER DETAIL 10, SHEET C8.1. INSTALL CAST IN PLACE DETECTABLE WARNING SYSTEM (TRUNCATED DOMES) PER ARMOR TILE - 36" X 48" PANEL. PRODUCT NO. ADA-C-3648W. SEE DETAIL 15, SHEET C8.0.
- 6 JOIN EXISTING CURB, CURB & GUTTER, SIDEWALK, PAVEMENT.
- 7 INSTALL "EV CHARGING" IN 12" HIGH WHITE LETTERING AT THE BASE OF THE PARKING STALL
- 8 FUTURE E/V CHARGING STATION. CONDUIT TO BE RAN TO STALL FOR FUTURE CONNECTION.
- 9 INSTALL COVERED TRASH ENCLOSURE AND RECYCLING BIN STORAGE. REFER TO ARCHITECTURAL PLANS FOR MORE DETAILS.
- 10 INSTALL STANDARD 90° PARKING STALL STRIPING PER DETAIL 7, SHEET C8.0.
- 11 INSTALL DRIVE THROUGH EQUIPMENT. REFER TO ARCHITECTURAL PLANS FOR MORE DETAILS.
- 12 INSTALL HEIGHT DETECTOR POLE. REFER TO ARCHITECTURAL PLANS FOR MORE DETAILS.
- 13 CONSTRUCT VALLEY GUTTER PER DETAIL 13, SHEET C8.0. WIDTH PER PLAN
- 14 INSTALL 6' WIDE WHEEL STOP AT 2.0' FROM FACE OF WHEEL STOP TO FACE OF CURB. PER DETAIL 9, SHEET C8.0.
- 15 INSTALL SITE LIGHTING. REFER TO ARCHITECTURAL PLANS FOR MORE DETAILS.
- 16 INSTALL ENHANCED DECORATIVE PAVING PER DETAIL 1, SHEET C8.0 AND FINISH PER ARCHITECTURAL PLANS.
- 17 INSTALL ACCESSIBLE PARKING STALL STRIPING PER DETAIL 9, SHEET C8.1
- 18 LANDSCAPE/PLANTER AREA. REFER TO LANDSCAPE PLANS FOR MORE INFORMATION.
- 19 INSTALL STANDARD DUTY CONCRETE SIDEWALK PER DETAIL 1, SHEET C8.0.
- 20 INSTALL HEAVY DUTY CONCRETE PAVEMENT, SECTION PER DETAIL 1, SHEET C8.0. THICKENED EDGE DETAIL PER DETAIL 2, SHEET C8.0 AT ALL EDGE CONDITIONS.
- 21 INSTALL HEAVY DUTY ASPHALT CONCRETE PAVEMENT, SECTION PER DETAIL 1, SHEET C8.0.
- 22 INSTALL SHORT-TERM BIKE RACK PER DETAIL 7, SHEET C8.1
- 23 INSTALL 18" WALK-OFF CURB PER DETAIL 8, SHEET C8.0.
- 24 INSTALL PULL BOX FOR FUTURE INSTALLATION OF EV CHARGING STATION. CONDUIT TO BE INSTALLED FROM BUILDING SERVICE PANEL TO EV CHARGING STATION FOR FUTURE INSTALLATION. REFER TO MEP PLANS FOR MORE INFORMATION.
- 25 INSTALL VAN ACCESSIBLE PARKING STALL SIGN PER DETAIL 12, SHEET C8.0. SIGN BASE POST PER DETAIL 11, SHEET C8.1
- 26 INSTALL STANDARD ACCESSIBLE PARKING STALL SIGN PER DETAIL 12, SHEET C8.0. SIGN BASE POST PER DETAIL 11, SHEET C8.1
- 27 INSTALL CAST IN PLACE DETECTABLE WARNING SYSTEM (TRUNCATED DOMES) PER ARMOR TILE - 36" X 48" PANEL. PRODUCT NO. ADA-C-3648W. SEE DETAIL 15, SHEET C8.0
- 28 TRASH ENCLOSURE APPROACH TO BE HEAVY DUTY CONCRETE PAVEMENT PER DETAIL 3, SHEET C8.0. CONCRETE REINFORCEMENT AND JOIN ASPHALT CONCRETE PER DETAIL 3, SHEET C8.0.
- 29 DRIVE THROUGH STRIPING PER ARCHITECTURAL PLANS.
- 30 INSTALL PARKING SIGNAGE PER ARCHITECTURAL PLANS.

**PAVING AND JOINTING NOTES**

1. EXPANSION/ISOLATION JOINTS SHALL BE PLACED BETWEEN BUILDING AND CURBS. SEE DETAIL 4, SHEET C8.1
2. CONTROL JOINT SPACING SHALL BE PER GEOTECHNICAL REPORT.
3. EXPANSION/ISOLATION JOINTS SHALL BE USED WHEREVER THE PAVEMENT WILL ADJUT A STRUCTURAL ELEMENT (LIGHT POLES, RETAINING WALLS, EXISTING CONCRETE PAVEMENT, BUILDING WALLS, MANHOLES, ETC) AND SEALED WITH POLYURETHANE SEALANT. SEE DETAIL 4, SHEET C8.1.
4. SAW-CUT CONTROL JOINTS WITHIN 12 HOURS OF POUR.
5. CONSTRUCTION JOINTS SHALL BE PER DETAIL 3, SHEET C8.1.
6. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT PERMANENT PAVEMENT IS NOT PLACED UNTIL ALL REQUIRED CONDUITS AND SLEEVING FOR IRRIGATION, UTILITIES, LIGHTING, ETC. HAVE BEEN PROPERLY INSTALLED.
7. DRIVE-THROUGH CONCRETE PAVEMENT REINFORCEMENT, IF REQUIRED, SHALL BE PER GEOTECHNICAL REPORT.



ADJACENT RESIDENTIAL

ADJACENT RETAIL  
1 STORY BRICK BUILDING  
±25,587 SF  
BUILDING HEIGHT: ±24'-7"

ADJACENT RESTAURANT  
1 STORY STUCCO BUILDING  
±1,858 SF  
BUILDING HEIGHT: ±16'-11"

MCDONALD'S  
(ONE-STORY)  
TYPE VB  
FULLY  
SPRINKLERED  
3,975 SF

E SANTA CLARA AVENUE

E SANTA CLARA AVENUE

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of Southern California  
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REVISIONS			
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THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14566, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.	
CONSTRUCTION COMPLETED:	

**ENGINEERS SEAL**

PREPARED UNDER THE SUPERVISION OF:

HANNAH LUEVANO

REVIEWED FOR CONSTRUCTABILITY AND RECOMMENDED FOR CONSTRUCTION:

JASON GABRIEL

DATE: 6/29/2023

DESIGNED: HS DRAWN: MH CHECKED: HS

PRINCIPAL CIVIL ENGINEER RCE NO.: 62968

**PROPOSED DRIVE-THRU RESTAURANT**

2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705

**PUBLIC WORKS AGENCY**  
CITY OF SANTA ANA

SITE KEYNOTE PLAN

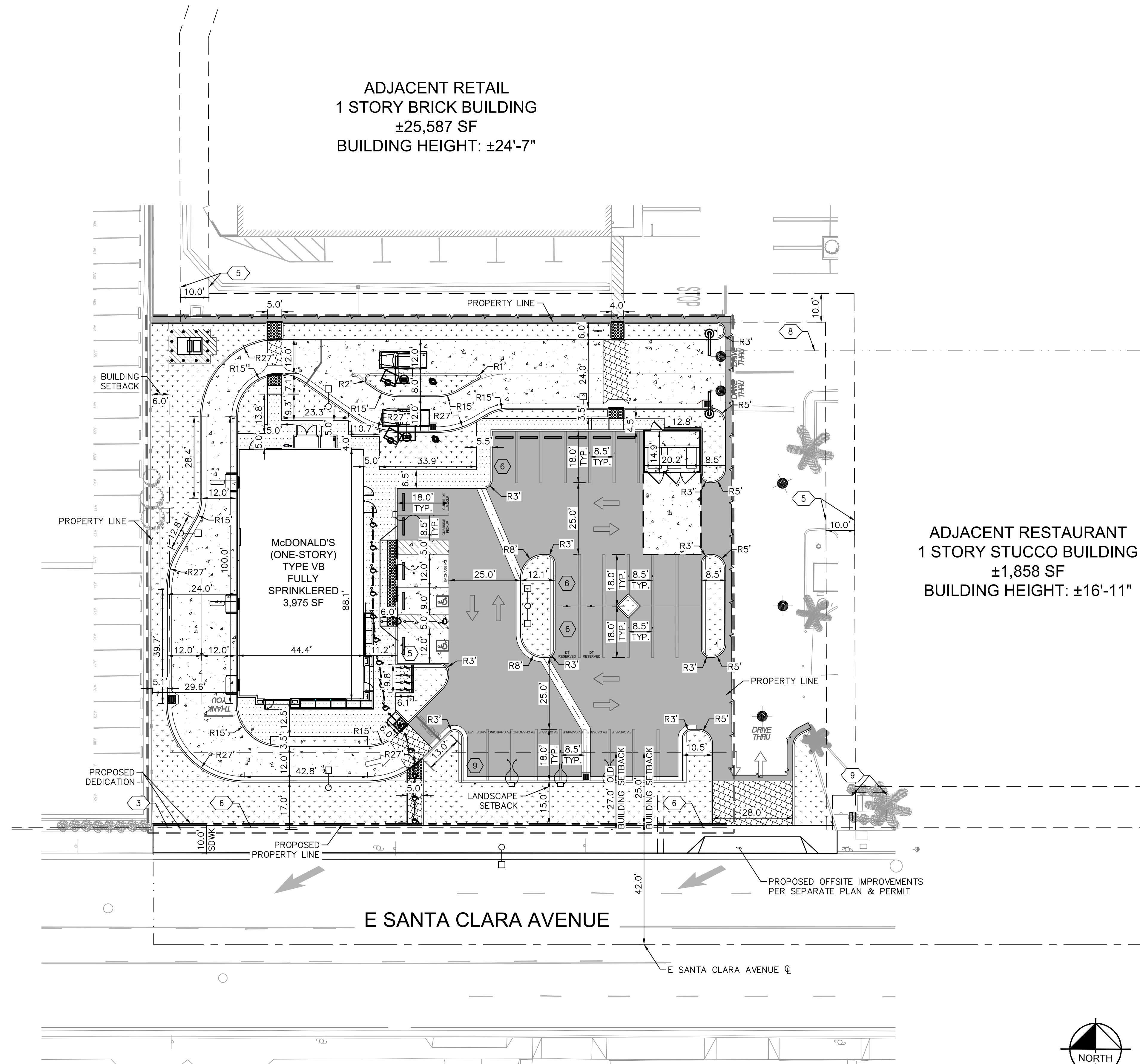
SHEET NO. C5.0

PROJECT NO. YY-NMNN-PROJECT TITLE PROJECT LIMITS

ADJACENT RETAIL  
1 STORY BRICK BUILDING  
±25,587 SF  
BUILDING HEIGHT: ±24'-7"

ADJACENT RESTAURANT  
1 STORY STUCCO BUILDING  
±1,858 SF  
BUILDING HEIGHT: ±16'-11"

ADJACENT  
RESIDENTIAL



**LEGEND**

- — — — — CENTER LINE
- — — — — PROPERTY LINE
- — — — — DEDICATION LINE
- - - - - EASEMENT LINE / SETBACK LINE
- - - - - APPROXIMATE LIMIT OF WORK LINE
- — — — — 0" CURB FACE
- ○ PROPOSED LIGHT POLE. REFER TO ELECTRICAL PLANS FOR MORE INFORMATION.
- (X) PARKING STALL COUNT
- [Pattern] STANDARD DUTY CONCRETE PAVEMENT. SECTION PER DETAIL 1, SHEET C8.0. SCORING PATTERN AND FINISH PER LANDSCAPING PLAN.
- [Pattern] HEAVY DUTY CONCRETE PAVEMENT. THICKENED EDGE PER DETAIL 2, SHEET C8.0 AT ALL EDGE CONDITIONS. PRIOR TO BIDDING, CONTRACTOR SHALL CONFIRM WITH MCDONALD'S OWNER/OPERATOR AND/OR MCDONALD'S AREA CONSTRUCTION MANAGER IF DRIVE-THROUGH CONCRETE WILL BE STAINED. IF DRIVE-THROUGH CONCRETE WILL BE STAINED, CONTRACTOR SHALL USE JET BLACK BY DAVIS COLORS OR SPECIFICATION PER OWNER OR ACM.
- [Pattern] LANDSCAPE/PLANTER AREA. REFER TO LANDSCAPE PLANS FOR MORE INFORMATION.
- [Pattern] HEAVY DUTY ASPHALT PAVEMENT. SECTION PER DETAIL 1, SHEET C8.0.
- [Pattern] GRIND AND RECAPPING OF 2"-3" RUBBERIZED ASPHALT CONCRETE
- [Pattern] DETECTABLE WARNING SYSTEM
- [Pattern] ENHANCED DECORATIVE PAVING

**TITLE REPORT EXCEPTIONS**

- 3 THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE STREET, HIGHWAY, OR FREEWAY ABUTTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED BY THE DOCUMENT.  
RECORDING DATE: AUGUST 15, 1967  
RECORDING NO: BOOK 8341, PAGE 582, OF OFFICIAL RECORDS.  
AFFECTS: PROPERTY ABUTTING E. SANTA CLARA AVENUE. (AFFECTS, PLOTTABLE AS SHOWN)
- 5 EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:  
GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY  
PURPOSE: UNDERGROUND ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION SYSTEMS AND ABOVE GROUND UTILITIES AND INCIDENTAL PURPOSES  
RECORDING DATE: JUNE 9, 1970  
RECORDING NO: BOOK 9311, PAGE 361, OF OFFICIAL RECORDS  
AFFECTS: HEREIN DESCRIBED LAND. (AFFECTS, PLOTTABLE AS SHOWN)
- 6 THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE STREET, HIGHWAY, OR FREEWAY ABUTTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED BY THE DOCUMENT.  
RECORDING DATE: OCTOBER 7, 1970  
RECORDING NO: BOOK 9425, PAGE 183, OF OFFICIAL RECORDS.  
AFFECTS: PROPERTY ABUTTING E. SANTA CLARA AVENUE. (AFFECTS, PLOTTABLE AS SHOWN)
- 8 AN UNRECORDED LEASE WITH CERTAIN TERMS, COVENANTS, CONDITIONS AND PROVISIONS SET FORTH THEREIN AS DISCLOSED BY THE DOCUMENT  
ENTITLED: MEMORANDUM OF REAL PROPERTY BUILT TO SUIT LEASE  
LESSOR: LEE J. HASENJAEGER AND LELAND FINLEY  
LESSEE: DEL TACO, INC., A CALIFORNIA CORPORATION  
RECORDING DATE: MAY 2, 1978  
RECORDING NO: BOOK 12658, PAGE 1472, OF OFFICIAL RECORDS (AFFECTS, PLOTTABLE AS SHOWN)
- 9 EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:  
GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION  
PURPOSE: UNDERGROUND ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION SYSTEMS AND ABOVE GROUND UTILITIES AND INCIDENTAL PURPOSES  
RECORDING DATE: FEBRUARY 9, 1979  
RECORDING NO: BOOK 13031, PAGE 771, OF OFFICIAL RECORDS  
AFFECTS: PARCEL 1 OF PARCEL B. (AFFECTS, PLOTTABLE AS SHOWN)

**Underground Service Alert**  
of Southern California  
CALL: TOLL FREE 1-800-422-4133  
TWO WORKING DAYS BEFORE YOU DIG

**NOTICE TO CONTRACTOR**  
PURSUANT TO ASSEMBLY BILL 3019, NO EXCAVATION PERMIT IS VALID UNLESS THE CONTRACTOR CONTACTS AND OBTAINS AN INQUIRY I.D. NUMBER FROM "UNDERGROUND SERVICE ALERT" (1-800-422-4133) AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING EXCAVATION.

REVISIONS				
NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED/INSTALLED

REFERENCES	
BENCHMARK NO.:	3C-26-06 ELEV.: 173.744' NAVD88
THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET.	
THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14566, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E.	
CONSTRUCTION COMPLETED:	

**ENGINEER'S SEAL**  
REGISTERED PROFESSIONAL ENGINEER  
HANNAH LUEVANO  
NO. 90371  
E OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:  
HANNAH LUEVANO  
SENIOR CIVIL ENGINEER RCE NO.: 90371  
DESIGNED: HS DRAWN: MH CHECKED: HS

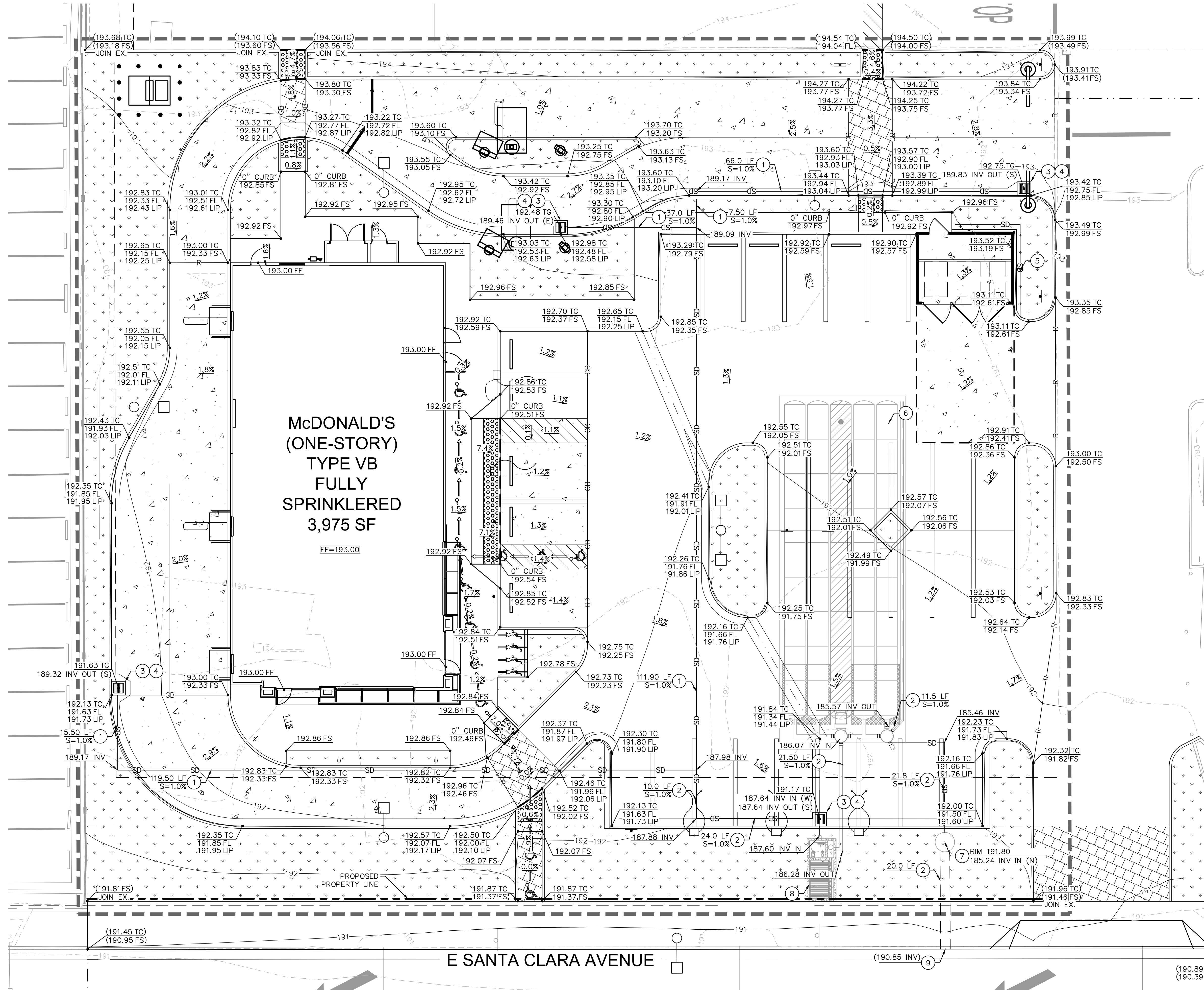
REVIEWED FOR CONSTRUCTIBILITY AND RECOMMENDED FOR CONSTRUCTION:  
JASON GABRIEL  
PRINCIPAL CIVIL ENGINEER RCE NO.: 62968

DATE: 6/29/2023  
XX/YYYY

**PROPOSED DRIVE-THRU RESTAURANT**  
2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705  
**PUBLIC WORKS AGENCY**  
CITY OF SANTA ANA  
HORIZONTAL CONTROL PLAN

SHEET NO. C5.1

PROJECT NO. YY-NNNN-PROJECT TITLE PROJECT LIMITS



**LEGEND**

	CENTERLINE
	PROPERTY LINE
	EASEMENT / SETBACK LINE
	APPROXIMATE CIVIL LIMIT OF WORK LINE
	PROPOSED STORM DRAIN PIPE
	GRADE BREAK LINE
	RIDGE LINE
	FLOW LINE
	PROPOSED SPOT ELEVATION
	EXISTING SPOT ELEVATION
	PROPOSED FLOW (DIRECTION AND SLOPE)
	LANDSCAPE AREA

- GRADING AND DRAINAGE NOTES**
- INSTALL 6" SDR-26 PVC STORM DRAIN PIPE AT 0.5% MIN. TRENCHING, BACKFILL, AND PAVEMENT REPAIR IN STREET PER CITY OF SANTA ANA STD. PLAN NO. 1150 AND 1151.
  - INSTALL 8" SDR-26 PVC STORM DRAIN PIPE AT 0.5% MIN. TRENCHING, BACKFILL, AND PAVEMENT REPAIR IN STREET PER CITY OF SANTA ANA STD. PLAN NO. 1150 AND 1151.
  - PAINT "NO DUMPING-DRAINS TO OCEAN" ON CURB ADJACENT TO CATCH BASIN PER DETAIL 2, SHEET C8.1
  - INSTALL 24" X 24" JENSEN PRECAST DROP INLET. ALL DROP INLETS SHALL HAVE "OLDCASTLE FLOGARD CATCH BASIN FILTER INSERTS" PER DETAIL 1, SHEET C8.2. ALL GRATES SHALL BE TRAFFIC RATED.
  - INSTALL DRAINAGE SLEEVE AGAINST TRASH ENCLOSURE PER DETAIL 6, SHEET C8.1. DRAIN THRU CURB FACE.
  - INSTALL UNDERGROUND ADS STORMTECH DETENTION SYSTEM. REFER TO DETAILS 1, SHEET C8.3 FOR MORE INFORMATION.
  - INSTALL PSI SINGLE STAGE SUMP PUMP PER DETAIL 2, SHEET C8.3.
  - INSTALL ADS ECOPURE BIOFILTER MODULAR WETLAND SYSTEM PER DETAIL 3, SHEET C8.3.
  - INSTALL 24" PARKWAY CULVERT TYPE A DRAIN PER CITY OF SANTA ANA STANDARD PLAN NO. 318. REFER TO SHEET C8.3 FOR MORE INFORMATION.

**Underground Service Alert**  
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TWO WORKING DAYS  
BEFORE YOU DIG

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GRAPHIC SCALE IN FEET  
0 5 10 20  
1" = 10'  
WHEN PRINTED AT FULL SIZE  
(24" X 36")

NORTH

FILE NO.:	<b>REVISIONS</b>	<b>REFERENCES</b>	ENGINEER'S SEAL	DATE												
	<table border="1" style="width: 100%;"> <thead> <tr> <th>NUMBER</th> <th>DATE</th> <th>INITIALS</th> <th>DESCRIPTION</th> <th>APPROVED</th> <th>INSTALLED</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED							BENCHMARK NO.: 3C-26-06      ELEV.: 173.744' NAVD88 THE ON-SITE BENCHMARK IS BASED ON NAVD 1988 DATUM, AND IS A SET MAG NAIL AND SHINER AT THE NORTHEAST CORNER OF PARCEL 2. ELEVATION = 193.65 FEET. THE BASIS OF BEARING IS THE CENTERLINE OF SANTA CLARA AVENUE PER TRACT MAP NO. 14568, BOOK 695, PAGE 47, COUNTY OF ORANGE, A BEARING OF N89°59'50"E. CONSTRUCTION COMPLETED:	PREPARED UNDER THE SUPERVISION OF:  HANNAH LUEVANO SENIOR CIVIL ENGINEER    RCE NO.: 90371 DESIGNED: HS    DRAWN: MH    CHECKED: HS REVIEWED FOR CONSTRUCTION:  JASON GABRIEL PRINCIPAL CIVIL ENGINEER    RCE NO.: 62968	6/29/2023    xx/yyyy
NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED											

**PROPOSED DRIVE-THRU RESTAURANT**

2109 E SANTA CLARA AVENUE  
SANTA ANA, CA 92705

**PUBLIC WORKS AGENCY**  
CITY OF SANTA ANA

GRADING AND DRAINAGE PLAN

SHEET NO. C6.0

PROJECT NO. YY-NNNN-PROJECT TITLE PROJECT LIMITS



**DOMESTIC WATER CONSTRUCTION NOTES**

- ALL SLEEVES FOR IRRIGATION LINES AND WIRES IN PLANTER AREAS SHALL BE INSTALLED PRIOR TO CONSTRUCTION OF CURBS AND PAVING OF SITE.
- UPSIZING EXISTING 1" WATER SERVICE AND EXISTING 5/8" METER WITH 2" WATER SERVICE AND 2" METER PER SEPARATE OFFSITE PLANS.
- INSTALL 1" PVC SCH. 80 IRRIGATION WATER LINE, TRENCHING, BACKFILL, AND PAVEMENT REPAIR IN STREET PER CITY OF SANTA ANA STD. PLAN NO. 1150 AND 1151.
- INSTALL 1" IRRIGATION BACKFLOW PREVENTER AND CONCRETE PAD PER CITY OF SANTA ANA STD. PLAN NO. 1431.
- IRRIGATION POINT OF CONNECTION. REFER TO LANDSCAPE PLANS FOR CONTINUATION.
- INSTALL 2" CPVC SCH. 80 DOMESTIC WATER LINE, TRENCHING, BACKFILL, AND PAVEMENT REPAIR IN STREET PER CITY OF SANTA ANA STD. PLAN NO. 1150 AND 1151.
- INSTALL 2" DOMESTIC BACKFLOW PREVENTER AND CONCRETE PAD PER CITY OF SANTA ANA STD. PLAN NO. 1431.
- BUILDING POINT OF CONNECTION (5'-FT FROM BUILDING FACE). REFER TO PLUMBING PLANS FOR CONTINUATION.

**FIRE WATER CONSTRUCTION NOTES**

- HOT-TAP AND CONNECT TO EXISTING 20" WATER MAIN PER CITY OF SANTA ANA STD. PLAN NO. 1408.
- INSTALL 6" DOUBLE DETECTOR CHECK ASSEMBLY PER CITY OF SANTA ANA STD. PLAN NO. 1433B.
- INSTALL 6" FDC & PIV.
- INSTALL 6" PVC C-900 CLASS 150 FIRE WATER LINE, TRENCHING, BACKFILL, AND PAVEMENT REPAIR IN STREET PER CITY OF SANTA ANA STD. PLAN NO. 1150 AND 1151.
- INSTALL LINE SIZE C-900 PVC CLASS 150 BEND WITH THRUST BLOCK PER CITY OF SANTA ANA STD. PLAN NO. 1412.
- BUILDING POINT OF CONNECTION (5'-FT FROM BUILDING FACE). REFER TO PLUMBING PLANS FOR CONTINUATION.

**STORM DRAIN CONSTRUCTION NOTES**

- REFER TO SHEET C6.0 FOR MORE INFORMATION ON PROPOSED SITE STORM DRAIN IMPROVEMENTS.

**SANITARY SEWER CONSTRUCTION NOTES**

- CONNECT TO EXISTING SEWER LATERAL PER CITY OF SANTA ANA CONNECTION DETAIL 1204A. CONTRACTOR TO POTHOLE AND VERIFY LOCATION OF EXISTING LATERAL PRIOR TO TRENCHING AND SEWER INSTALLATION. IF DISCREPANCIES ARE FOUND, NOTIFY ENGINEER FOR FURTHER DIRECTION. CONTRACTOR TO SCOPE EXISTING LINE TO VERIFY CONDITION PRIOR TO TRENCHING AND SEWER INSTALLATION.
- INSTALL 4" SDR-35 PVC SEWER PIPE AT MINIMUM 2% SLOPE, TRENCHING, BACKFILL, AND PAVEMENT REPAIR IN STREET PER CITY OF SANTA ANA STD. PLAN NO. 1150 AND 1151.
- INSTALL 6" SDR-35 PVC SEWER PIPE AT MINIMUM 2% SLOPE, TRENCHING, BACKFILL, AND PAVEMENT REPAIR IN STREET PER CITY OF SANTA ANA STD. PLAN NO. 1150 AND 1151.
- INSTALL SEWER CLEANOUT PER CITY OF SANTA ANA STD. PLAN NO. 1204.
- BUILDING POINT OF CONNECTION. REFER TO PLUMBING PLANS FOR CONTINUATION.
- INSTALL JENSEN PRECAST 1200 GAL. GREASE INTERCEPTOR. REFER TO PLUMBING PLANS FOR MORE INFORMATION.
- INSTALL JENSEN PRECAST SAMPLE BOX. REFER TO PLUMBING PLANS FOR MORE INFORMATION.

**LEGEND**

- CENTER LINE
- PROPERTY LINE
- EASEMENT LINE / SETBACK LINE
- APPROXIMATE LIMIT OF WORK LINE
- EXISTING WATER LINE
- EXISTING SANITARY SEWER LINE
- EXISTING GAS LINE
- EXISTING UNDERGROUND ELECTRICAL LINE
- EXISTING UNDERGROUND TELECOMMUNICATIONS LINE
- EXISTING STORM DRAIN LINE
- PROPOSED WATER LINE
- PROPOSED FIRE WATER LINE
- PROPOSED SANITARY SEWER LINE
- PROPOSED IRRIGATION LINE
- PROPOSED GREASE WASTE LINE
- PROPOSED STORM DRAIN LINE

**GENERAL NOTES**

- THE EXISTING UTILITIES SHOWN ON THE PLAN ARE BASED ON AVAILABLE RECORDS. THE CONTRACTOR MUST FIELD DETERMINE THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ANY CONSTRUCTION. REPORT DISCREPANCIES AND POTENTIAL CONFLICTS WITH PROPOSED UTILITIES TO ENGINEER PRIOR TO INSTALLATION OF ANY PIPING.
- COORDINATION WITH UTILITY PURVEYORS WILL BE REQUIRED TO DETERMINE FINAL LOCATION OF ALL PROPOSED CONNECTIONS TO PUBLIC MAIN LINES.
- ALL DRY AND WET UTILITY CROSSING SHALL HAVE MIN. 12" VERTICAL CLEARANCE.
- UTILITY TRENCHING TO FOLLOW ORDER OF PREFERRED LOCATIONS PER STD. PLAN NO. 1140.
- FOR TRENCH BEDDING, BACKFILL, AND PAVEMENT REPAIR, SEE STD. PLAN NO. 1150 AND 1151 FOR MORE DETAILS.
- WATER AND SEWER MAINS CROSSING STRUCTURES OR STRUCTURAL ELEMENTS SHALL BE SLEEVED/ENCASED PER STD. PLAN NO. 1429.

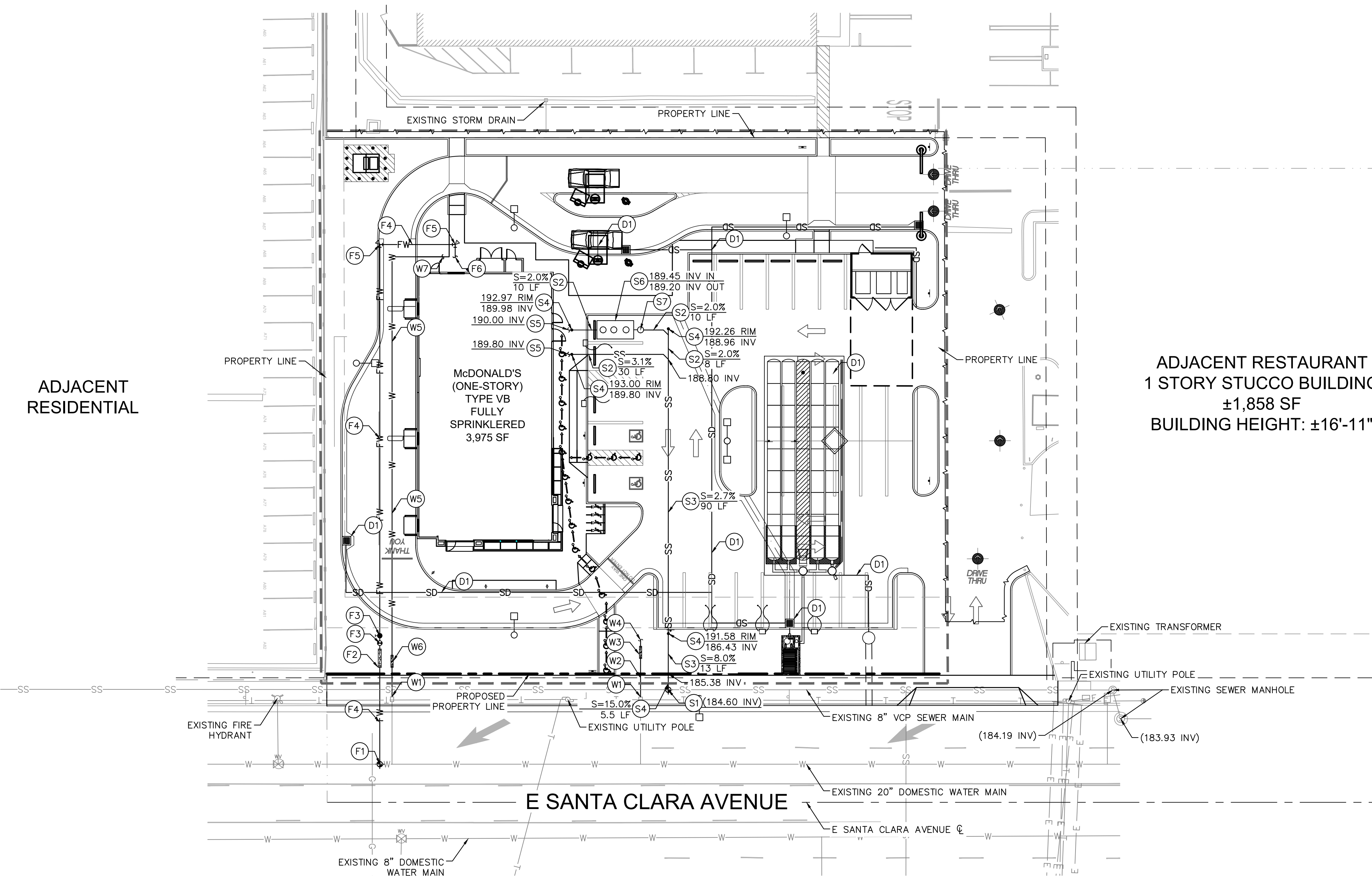
**GREASE INTERCEPTOR NOTES**

"NO FOOD SERVICE ESTABLISHMENT IS BEING PROPOSED. IF A FOOD ESTABLISHMENT IS PROPOSED IN THE FUTURE, IT MUST COMPLY WITH THE CITY'S ORDINANCE NO. NS 26-70"

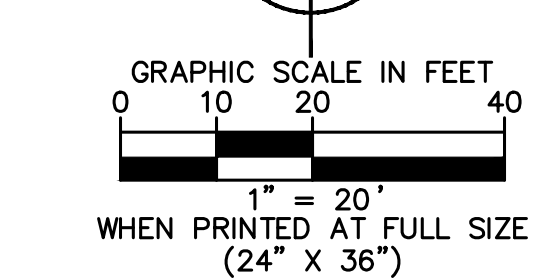
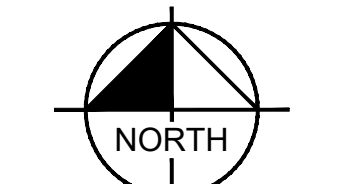
**SEWER GENERATION CALCULATIONS**

EXISTING RESIDENTIAL SEWER GENERATION: 900 GAL/DAY  
 PROPOSED RESTAURANT SEWER GENERATION: 2,752 GAL/DAY

\*BASED ON CITY OF SANTA ANA DESIGN GUIDELINES FOR WATER AND SEWER FACILITIES (HTTPS://WWW.SANTA-ANA.ORG/SEWER-RATE-STUDY/)



ADJACENT RESTAURANT  
 1 STORY STUCCO BUILDING  
 ±1,858 SF  
 BUILDING HEIGHT: ±16'-11"



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	NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	INSTALLED					

PROJECT NO. YY-NNNN-PROJECT TITLE PROJECT LIMITS