

**GENERAL NOTES**

- A PERMIT SHALL BE OBTAINED FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS FOR ANY WORK WITHIN THE STREET RIGHT-OF-WAY.
- THE STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH SAN DIEGO COUNTY STANDARDS AND AS APPROVED BY THE MATERIALS LABORATORY.
- APPROVAL OF THESE IMPROVEMENT PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.
- ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED, CONNECTED AND TESTED PRIOR TO CONSTRUCTION OF DIKE, CURB, CROSS GUTTER AND PAVING.
- THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS. HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY SHOWN HEREON AND ANY OTHER WHICH IS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
- LOCATION AND ELEVATION OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR WILL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
- THE CONTRACTOR SHALL NOTIFY THE SAN DIEGO GAS & ELECTRIC COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS/HER WORK WITH COMPANY REPRESENTATIVES.
 

NOTICE: ALL ELECTRICAL AND GAS SERVICES WITHIN THIS PROJECT ARE "UNDERGROUND INSTALLATIONS" FOR LOCATION OF ELECTRICAL CABLES AND GAS PIPING AND APPURTENANCES CONTACT THE SAN DIEGO GAS & ELECTRIC COMPANY. TELEPHONE: 1-800-422-4133
- THE CONTRACTOR SHALL NOTIFY AT&T TELEPHONE COMPANY, PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS/HER WORK WITH COMPANY REPRESENTATIVES.
 

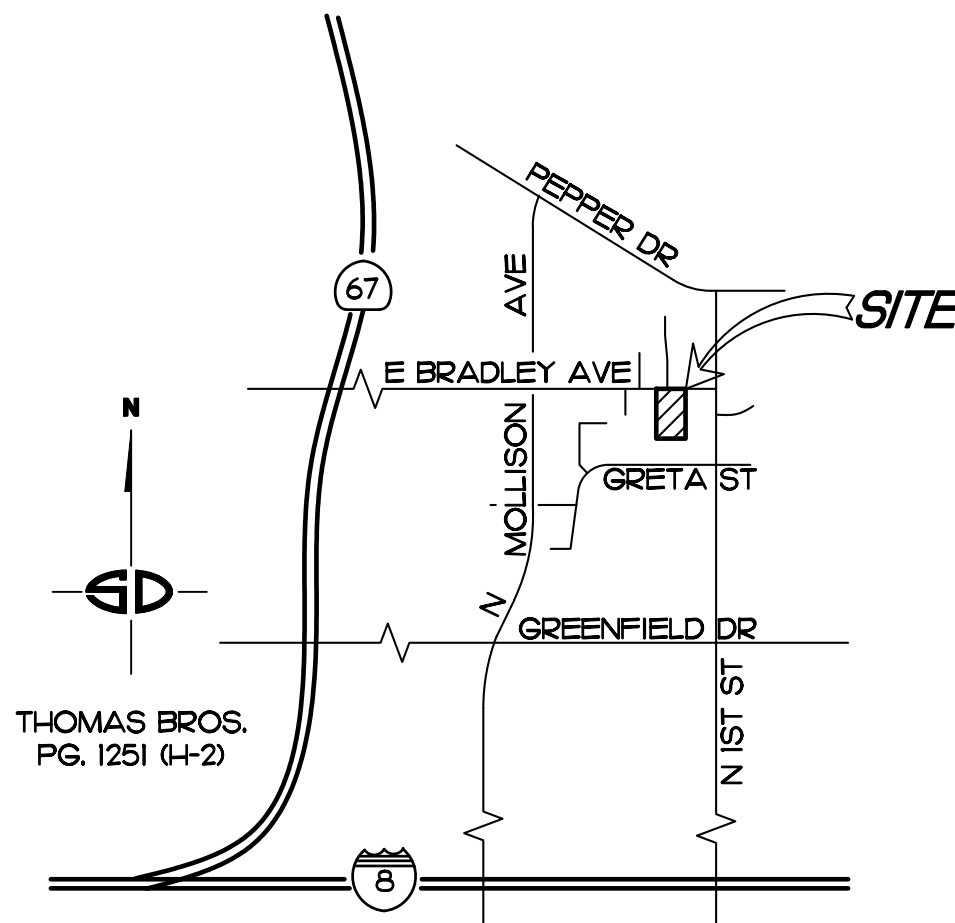
NOTICE: ALL TELEPHONE SERVICES WITHIN THIS PROJECT BOUNDARY ARE "UNDERGROUND INSTALLATIONS". FOR LOCATION OF CABLES AND APPURTENANCES CONTACT AT&T. TELEPHONE: 1-800-422-4133
- THE CONTRACTOR SHALL NOTIFY HELIX WATER DISTRICT PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS/HER WORK WITH DISTRICT REPRESENTATIVES.
 

NOTICE: ALL WATER SERVICES WITHIN THIS PROJECT BOUNDARY ARE "UNDERGROUND INSTALLATIONS". FOR LOCATION OF PIPES AND APPURTENANCES CONTACT HELIX WATER DISTRICT. TELEPHONE: (619) 446-0585
- IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO CONTACT THE UTILITY AGENCIES, ADVISE THEM OF THE PROPOSED IMPROVEMENTS, AND BEAR THE COST OF RELOCATIONS, IF NEEDED.
- ALL TELEVISION SERVICES WITHIN THIS PROJECT ARE "UNDERGROUND INSTALLATIONS" FOR LOCATION OF CABLES AND APPURTENANCES CONTACT AT&T COMPANY AT 1-800-422-4133.
- POWER SOURCES AND RUNS SERVING STREET LIGHTS SHALL BE SHOWN ON THE "RECORD PLAN" IMPROVEMENT DRAWINGS. ALL POWER SOURCES SHALL BE LOCATED WITHIN THE DEDICATED RIGHT-OF-WAY, OR WITHIN EASEMENT DEDICATED TO THE COUNTY OF SAN DIEGO.
- NO PAVING SHALL BE DONE UNTIL EXISTING POWER POLES TO BE RELOCATED ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.
- PRIVATE ROAD IMPROVEMENTS SHOWN HEREON ARE FOR INFORMATION ONLY. COUNTY OFFICIALS SIGNATURE HEREON DOES NOT CONSTITUTE APPROVAL OR RESPONSIBILITY OF ANY KIND FOR THE DESIGN OR CONSTRUCTION OF THESE PRIVATE IMPROVEMENTS. (IF APPLICABLE)
- ALL SIGNS SHALL BE MADE WITH ALUMINUM SIGN PANELS WITH TYPE IV OR BETTER (AT LEAST HIGH INTENSITY PRISMATIC) RETROREFLECTIVE SHEETING IN CONFORMANCE WITH SECTION 82, "SIGNS AND MARKINGS" OF THE MOST CURRENT CALTRANS STANDARD SPECIFICATIONS WITH THE EXCEPTION OF SECTION 82-2.02A, PART 1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY STRIPING, PAVEMENT MARKERS, OR LEGENDS OBLITERATED BY THE CONSTRUCTION OF THIS PROJECT.
- ALL NEW STRIPING AND SANDBLASTING OF REDUNDANT STRIPING TO BE DONE BY CONTRACTOR.
- ALL CUT AND FILL SLOPES THREE FEET (3') HIGH CREATED BY GRADING FOR STREET AND DRIVEWAYS SHALL BE HYDROSEEDED WITH SAN DIEGO COUNTY APPROVED HYDROSEED MIXTURE. HYDROSEEDED SLOPES SHALL BE IRRIGATED BY WATER TRUCK UNTIL THE MIXTURE GERMINATES AND 70% GROWTH IS ESTABLISHED.
- ASPHALT CONCRETE SURFACING MATERIAL SHALL BE HAND-RAKED AND COMPACTED TO FORM SMOOTH TAPERED CONNECTIONS ALONG ALL EDGES INCLUDING THOSE EDGES ADJACENT TO SOIL. THE EDGES OF ASPHALT CONCRETE SHALL BE HAND-RAKED AT 45 DEGREES OR FLATTER, SO AS TO PROVIDE A SMOOTH TRANSITION NEXT TO EXISTING SOIL, INCLUDING THOSE AREAS SCHEDULED FOR SHOULDER BACKING. THE ABOVE SHALL BE DONE TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
- CONTRACTOR SHALL APPLY FOR A TRAFFIC CONTROL PERMIT EIGHT WEEKS PRIOR TO COMMENCEMENT OF WORK. NO WORK SHALL COMMENCE UNTIL ISSUANCE OF SAID PERMIT. FOR INFORMATION CALL (619) 694-3663. THE TRAFFIC CONTROL PERMIT SHALL REQUIRE SPECIFICATIONS FOR THE INFORMATIONAL SIGNS.
- STREET IMPROVEMENTS AND DRAINAGE STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE COUNTY OF SAN DIEGO SPECIAL PROVISIONS AND SPECIFICATIONS FOR THE IMPROVEMENT OF NEW STREETS.
- FINAL ACCEPTANCE OF THE TO-BE PUBLICLY MAINTAINED STORM DRAIN LINES WILL BE SUBJECT TO INTERNAL CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION BY A CCTV CONTRACTOR. THE PERMITTEE/CONTRACTOR WILL BE RESPONSIBLE TO SCHEDULE AND PAY FOR THE COST OF INSPECTION. ONCE CCTV INSPECTION IS COMPLETE, IT SHALL BE SUBMITTED TO DPW INSPECTOR FOR REVIEW AND FINAL APPROVAL. CCTV INSPECTION SHALL MEET THE REQUIREMENTS SET FORTH IN DL-HD-4.

California Council of Civil Engineers & Land Surveyors

California Council of Civil Engineers & Land Surveyors

**IMPROVEMENT PLANS FOR BRADLEY AVENUE**



VICINITY MAP  
NO SCALE

**MONUMENTATION GENERAL NOTE**

"THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND PROTECT ALL SURVEY CONTROL MONUMENTS, WHETHER SHOWN ON THESE PLANS OR NOT, WITHIN THE PROJECT AREA. ALL SURVEY MONUMENTS, WHETHER FOR HORIZONTAL OR VERTICAL CONTROL, THAT WILL OR COULD BE DISTURBED OR REMOVED BY THE CONTRACTOR, OR HIS EMPLOYEES, AGENTS, SUBCONTRACTORS, CONSULTANT OR LICENSEES, SHALL BE LOCATED PRIOR TO BEING DISTURBED OR REMOVED AND REPLACED OR RESET, IN ACCORDANCE WITH THE CALIFORNIA BUSINESS & PROFESSIONS CODE SECTION 8771(B), AT THE CONTRACTOR'S SOLE EXPENSE, UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA. IN ADDITION, A RECORD OF SURVEY OR CORNER RECORD, AS APPLICABLE, SHALL BE FILED AND/OR RECORDED, IN ACCORDANCE WITH THE PROVISIONS OF SAID CODE."

**REFERENCE DRAWINGS**

DESCRIPTION	DRAWING NUMBER	AGENCY
WATER MAIN	W.O. 7386	HELIX WATER DISTRICT
SEWER MAIN		COUNTY OF SAN DIEGO SANITATION DISTRICT
ROAD IMPROVEMENTS	CG 2849	COUNTY OF SAN DIEGO

**LEGAL DESCRIPTION**

APN # 388-331-04, 05, & 06  
THE EASTERLY 100 FEET OF THE WESTERLY 445 FEET OF THE WEST 6 ACRES COMMENCING AT A POINT II CHAINS WEST AND 24 RODS NORTH OF THE SOUTH-EAST CORNER OF SECTION 35, TOWNSHIP 15 SOUTH, RANGE 1 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, THENCE 80 RODS, THENCE NORTH 24 RODS, THENCE WEST 80 RODS, THENCE SOUTH 24 RODS TO THE POINT OF COMMENCEMENT, SAID PROPERTY BEING ALSO KNOWN AS LOT 12 OF SOMERMONT PLACE, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 661.

TOGETHER WITH  
THE EASTERLY 100 FEET OF THE WESTERLY 545 FEET OF THE FOLLOWING DESCRIBED PROPERTY, COMMENCING AT A POINT II CHAINS WEST AND 24 RODS NORTH OF THE SOUTH-EAST CORNER OF SECTION 35, TOWNSHIP 15 SOUTH, RANGE 1 WEST, SAN BERNARDINO BASE AND MERIDIAN, THENCE 80 RODS, THENCE NORTH 24 RODS, THENCE WEST 80 RODS, THENCE SOUTH 24 RODS TO THE POINT OF COMMENCEMENT, SAID PROPERTY BEING ALSO KNOWN AS LOT 12 OF SOMERMONT PLACE, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 661.

ALSO TOGETHER WITH  
ALL THE WESTERLY 6 ACRES, EXCEPTING THE WESTERLY 545 FEET THEREOF OF THE FOLLOWING DESCRIBED PROPERTY, COMMENCING AT A POINT II CHAINS WEST AND 24 RODS NORTH OF THE SOUTH-EAST CORNER OF SECTION 35, TOWNSHIP 15 SOUTH, RANGE 1 WEST, SAN BERNARDINO BASE AND MERIDIAN, THENCE 80 RODS, THENCE NORTH 24 RODS, THENCE WEST 80 RODS, THENCE SOUTH 24 RODS TO THE POINT OF COMMENCEMENT, SAID PROPERTY BEING ALSO KNOWN AS LOT 12 OF SOMERMONT PLACE, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 661.

**FOR WORK PROPOSED WITHIN THE COUNTY RIGHT-OF-WAY, AN ENCROACHMENT PERMIT IS REQUIRED**

**HELIX WATER DISTRICT**

RMB20032

ACCEPTED BY JAMES A. TOMASULO DATE \_\_\_\_\_  
EXPIRES ONE YEAR AFTER SIGNATURE DATE



**NOTICE**

THE ISSUANCE OF THIS PERMIT/APPROVAL BY THE COUNTY OF SAN DIEGO DOES NOT AUTHORIZE THE APPLICANT FOR SAID PERMIT / APPROVAL TO VIOLATE ANY FEDERAL, STATE, OR COUNTY LAWS, ORDINANCES, REGULATIONS, OR POLICIES, INCLUDING BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT AND ANY AMENDMENTS THERETO.

**SPECIAL NOTES**

- ONSITE DRAINAGE FACILITIES WILL BE MAINTAINED BY THE OWNER.
- PROPERTY OWNER IS AWARE OF THE COUNTY WATER CONSERVATION IN LANDSCAPING ORDINANCE AND WILL PROCESS LANDSCAPE AND IRRIGATION PLANS IN ACCORDANCE WITH ORDINANCE NO. 10032 DURING BUILDING PERMIT PHASE.
- ALL IMPORTED FILL TO BE OBTAINED FROM A LEGAL SITE.
- THE PROPERTY OWNER IS AWARE OF THE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH POLICIES AND WILL OBTAIN DEH APPROVAL DURING BUILDING PERMIT PHASE.

**OWNER'S CERTIFICATE**

IT IS AGREED THAT FIELD CONDITIONS MAY REQUIRE CHANGES TO THESE PLANS.

IT IS FURTHER AGREED THAT THE DEVELOPER SHALL HAVE A REGISTERED CIVIL ENGINEER MAKE SUCH CHANGES, ALTERATIONS, OR ADDITIONS TO THESE PLANS WHICH THE DIRECTOR OF PLANNING & DEVELOPMENT SERVICES DETERMINES ARE NECESSARY AND DESIRABLE FOR THEN PROPER COMPLETION OF THE IMPROVEMENTS.

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
PHILIP CHODUR, PRESIDENT

ASSESSOR'S PARCEL NO. 388-331-04, 05 & 06  
1065 EAST BRADLEY, LLC  
7626 EL CAJON BLVD.  
LA MESA, CA 91942  
PHONE: (619) 823-3402

**CMP SELECTED FOR STORMDRAIN**

STORM DRAINS SHALL BE CERTIFIED BY THE DEVELOPER'S SOILS ENGINEER TO HAVE A 60 YEAR SERVICE LIFE (IN PUBLIC RIGHT-OF-WAY) AND 25 YEAR SERVICE LIFE (PRIVATE PROPERTY) FOR THE PARTICULAR SOIL AND LOCATION SHOWN ON THE PLANS. THIS CERTIFICATION SHALL BE MADE PRIOR TO THE INSTALLATION OF THE STORM DRAIN.

**FOR SUBDIVISION**

THE CONSTRUCTION OF ONE PCC STANDARD DRIVEWAY PER LOT, LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER OF WORK. PCC SURFACING OF DRIVEWAY TO EXTEND FROM CURB TO PROPERTY LINE. USE STANDARD DRAWINGS G-14, G-15, G-16.

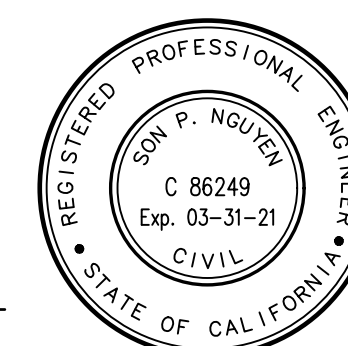
**DECLARATION OF RESPONSIBLE CHARGE**

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF SAN DIEGO AND HELIX WATER DISTRICT ARE CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

SNIPES-DYE ASSOCIATES  
8348 CENTER DRIVE, SUITE G  
LA MESA, CA 91942-2910  
PHONE: (619) 697-9234

BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
SON P. NGUYEN, R.C.E. 86249  
EXPIRES 03-31-21



**WORK TO BE DONE**

IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE IN ACCORDANCE WITH THE PLANS, THE CURRENT SAN DIEGO COUNTY ENGINEERING DEPARTMENT STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS FOR IMPROVEMENT OF SUBDIVISION STREETS, INCLUDING THE STANDARD REFERENCED DRAWINGS, STANDARD SPECIFICATIONS:

- STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (CURRENT EDITION).
- STANDARD SPECIAL PROVISIONS.
- SAN DIEGO COUNTY GRADING ORDINANCE.
- SAN DIEGO AREA REGIONAL STANDARD DRAWING (CURRENT EDITION).
- HELIX WATER DISTRICT & WATER AGENCY STANDARDS (WAS).

**LEGEND**

IMPROVEMENT	STANDARD DWGS.	SYMBOL	QTY.
EXISTING CONTOUR		490	
EXISTING SPOT ELEVATION		x 489.6	
EXISTING CONCRETE SURFACE		[Symbol]	
EXISTING ASPHALT SURFACE		[Symbol]	
EXISTING WATER LINE		W	
EXISTING SEWER LINE		S	
EXISTING OVER-HEAD UTILITIES		OH	
EXISTING GAS LINE		G	
PROPERTY BOUNDARY		[Symbol]	
PROPOSED CONTOUR		490	
PROPOSED SPOT ELEVATION		492.47 TC 491.97	
PROPOSED CONCRETE SIDEWALK	R.S.D. G-7	[Symbol]	
PROPOSED A.C. PAVEMENT	(SEE GENERAL NOTE NO. 2 & DETAIL SHT. 2)	[Symbol]	
PROPOSED PVT. 6" CONCRETE CURB	R.S.D. G-O1	[Symbol]	
PROPOSED PVT. 6" CONCRETE CURB/GUTTER	R.S.D. G-O2, TYPE G	[Symbol]	
PROPOSED 24" CONC. DRIVEWAY	G-14B	[Symbol]	
PROPOSED PVT. 6" PVC SDR-35 LATERAL W/ PVT. SEWER CLEANOUT	SP-O1, SP-O2, SC-O1, SS-O1 OR SS-O2, SS-O3	[Symbol]	
PROPOSED ABANDONMENT OF EXISTING - 3/4" WATER SERVICE BY H.W.D.	W.A.S. WS-O8	[Symbol]	3 EA.
PIPE ENCASEMENT	W.A.S. WP-O8	[Symbol]	
PROPOSED PVT. TREE WELL (L.I.D.)		[Symbol]	
PROPOSED CURB CUT W/ SPLASH PAD		[Symbol]	
PROPOSED STREET LIGHT (35 WATT LEOTEK, 6CJO-15-HMV-WW-2R-CY-700 (PCR7AHSI 7 WIRE))	R.S.D. E-O1	[Symbol]	
SIGN	R.S.D. M-45	[Symbol]	
CONTINUES BARRICADE	R.S.D. M-O9	[Symbol]	
DIRECTION OF DRAINAGE		[Symbol]	

**SHEET INDEX**

NO.	DESCRIPTION
1	IMPROVEMENT TITLE / NOTES
2	NOTES / DETAILS / SECTIONS
3	IMPROVEMENT PLAN / PROFILE
4	EROSION CONTROL NOTES / DETAILS
5	EROSION CONTROL & CONSTRUCTION BMP PLAN
6	BMP ENLARGED PLAN & DETAILS

STORMWATER STRUCTURAL POLLUTANT CONTROL AND AND HYDRO-MODIFICATION CONTROL BMP'S				
DESCRIPTION / TYPE	SHEET	BMP ID NO.	MAINTENANCE CATEGORY	MAINTENANCE AGREEMENT RECORDED DOCUMENT NO.
TREE WELLS	3, 6	#5 - #10	-	-

\* BMP'S APPROVED AS PART OF STORMWATER QUALITY MANAGEMENT PLAN (SWQMP) DATED 07/23/2020 ON FILE WITH DPW. ANY CHANGES TO THE ABOVE BMP'S WILL REQUIRE SWQMP REVISION AND PLAN CHANGE APPROVALS.  
\*\* SEE GRADING PLAN PDS2019-LDGRMJ-30236 (SHEETS 9 & 11) FOR ALL PROJECT BMP'S.

**PRIVATE CONTRACT**

SHEET 1 COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS SHEETS 6

IMPROVEMENT TITLE / NOTES FOR:  
**BRADLEY AVENUE**

CALIFORNIA COORDINATE INDEX 238-1785

APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER BY: \_\_\_\_\_  
SON P. NGUYEN R.C.E. 86249

PDS2019-LDPIIP-60071

NOTE	PDS ENVIRONMENTAL REVIEW	APPLICANT	FIRE AGENCY	ENGINEER OF WORK	PERMITS
CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.	APPROVED FOR COMPLIANCE WITH ENVIRONMENTAL REVIEW APPROVED BY: _____ DATE: _____	1065 EAST BRADLEY, LLC. ATTN: PHILIP CHODUR 7626 EL CAJON BLVD. LA MESA, CA 91942 (619) 823-3402	SAN MIGUEL FIRE PROTECTION DISTRICT APPROVED BY: _____ DATE: _____	<b>Snipes-Dye associates</b> civil engineers and land surveyors 8348 CENTER DRIVE, STE. G, LA MESA, CA 91942 TELEPHONE (619) 697-9234 FAX (619) 460-2033	WDID NO. _____ N/A GRADING PLAN NO. _____ PDS2019-LDGRMJ-30236 SITE PLAN PERMIT _____ N/A LANDSCAPE PLAN NO. _____ PDS2019-LP-_____
UNAUTHORIZED CHANGES & USES: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, OR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THESE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.	SD COUNTY SANITATION DISTRICT WINTER GARDENS SERVICE AREA REVIEWD BY: _____ DATE: _____ "VALID TWO YEARS FROM DATE"	ASSESSOR'S PARCEL NUMBER 388-331-04 388-331-05 388-331-06 <b>SITE ADDRESS</b> 1065-1069 E. BRADLEY AVENUE EL CAJON, 92021	RECORD PLAN BY: _____ SON P. NGUYEN R.C.E. 86249 EXP. 03-31-21 DATE: _____	COUNTY APPROVED CHANGES No. _____ Description _____ Approved by _____ Date _____	BENCH MARK DESCRIPTION: STANDARD BENCHMARK # 91 LOCATION: TOP OF CURB, N END CB RETURN AT NW CORNER GRETA STREET AND FIRST STREET RECORD FROM: CITY OF EL CAJON ELEVATION: _____ 515.161 DATUM: _____ NAVD 88



**SEWER NOTES**

UNLESS OTHERWISE INDICATED HEREIN, ALL WORK SHALL BE DONE IN ACCORDANCE WITH:

- A. THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC) LATEST APPROVED EDITION.
- B. THE REGIONAL SUPPLEMENTAL AMENDMENTS TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- C. THE SAN DIEGO REGIONAL STANDARD DRAWINGS (SDRSD), LATEST APPROVED EDITION.

AND THE FOLLOWING SPECIAL PROVISIONS:

1. TRENCH WIDTH SHALL BE PER SDRSD NO. SP-02, FOR PIPE UP TO 15 INCHES, UNLESS OTHERWISE NOTED. FOR PIPE 15 INCHES AND OVER, TRENCH WIDTH SHALL BE PER SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 306-3.
2. PIPE AND BEDDING CONDITIONS INCLUDING FILTER FABRIC WRAP "BURRITO WRAP" WITH 12 INCH OF OVERLAP, SHALL BE PER SDRSD SP-02, FOR PIPE UP TO 18 INCHES, FOR PIPE 18 INCHES AND ABOVE, REFER TO SSPWC SECTION 306-7.7. WHENEVER THE EXCAVATED MATERIAL IS NOT SUITABLE FOR BACKFILL, THE CONTRACTOR SHALL REMOVE THIS MATERIAL AND ARRANGE FOR AND FURNISH SUITABLE IMPORTED BACKFILL MATERIAL WHICH IS CAPABLE OF ATTAINING THE REQUIRED RELATIVE DENSITY, IMPORTED BACKFILL MATERIAL, OR OTHER BACKFILL MATERIAL SHALL BE APPROVED BY THE ENGINEER, AND PER SECTION 306-12 OF THE "GREENBOOK" STANDARD SPECIFICATIONS.
3. PVC PIPE BEDDING FROM BOTTOM OF PIPE 12 INCHES MINIMUM ABOVE THE PIPE SHALL BE 3/4-INCH CRUSHED ROCK. FILTER FABRIC "BURRITO WRAP" IS REQUIRED WHERE CRUSHED ROCK LAYERING IS USED.
4. AFTER COMPLETION OF PIPE LAYING, ALL MAIN LINE SEWERS, SERVICE LATERALS AND STRUCTURES SHALL BE TESTED IN THE PRESENCE OF THE INSPECTOR. AIR PRESSURE TEST, PER SSPWC SECTION 306-7.8.2.4, AND MANDREL TEST, PER SECTION 306-7.8.3.2 SHALL BE USED UNLESS OTHERWISE DIRECTED BY THE COUNTY INSPECTOR.

FINAL ACCEPTANCE OF SEWER LINES WILL BE SUBJECT TO INTERNAL CLOSED CIRCUIT TELEVISION (CCTV) INSPECTION. IT WILL BE THE PERMITTEE'S RESPONSIBILITY TO PAY FOR THE COST OF THIS WORK.

**A. CCTV INSPECTION PROCEDURES:**

1. VIDEO INSPECTION SHALL SHOW WITH HIGH RESOLUTION OPERATIONAL AND STRUCTURAL DEFECTS E.G., INFLOWS, SAGS, OFFSET JOINTS, CRACKS, ROUGHNESS, "FINS" OR FOLDS IN THE PIPELINES, COMPLETE WITH AUDIO COMMENTARY AND INSPECTION LOG.
2. THE SANITATION DISTRICT ENGINEER AND COUNTY INSPECTOR SHALL BE NOTIFIED A MINIMUM OF 2 WORKING DAYS IN ADVANCE OF VIDEO INSPECTING.
3. VIDEO INSPECTION SHALL BE PERFORMED ONE PIPE REACH (E.G., MANHOLE TO MANHOLE) AT A TIME.
4. THE CONTRACTOR SHALL VIDEO INSPECT THE PIPELINE WITH MAXIMUM FLOW DIVERTED (IF REQUIRED) FROM THE PIPELINE. THE PIPE REACH BEING INSPECTED SHALL BE ISOLATED FROM THE REMAINDER OF THE PIPELINES WITH THE UPSTREAM SEWAGE FLOW BYPASSED (IF REQUIRED). IN THE EVENT THAT THE EXISTING FLOW IS INTERFERING WITH THE VIDEO OPERATION, A BYPASS SHALL BE PERFORMED BY THE CONTRACTOR TO LOWER THE FLOW VOLUME SUFFICIENTLY TO ALLOW FOR A CLEAR VIDEO PICTURE. SUFFICIENT WATER SHALL BE SUPPLIED TO THE ISOLATED SECTION TO CAUSE DRAINAGE REACHING THE DOWNSTREAM MANHOLE PRIOR TO VIDEO INSPECTING. IF EXISTING FLOWS ARE HIGH, PRE-CONSTRUCTION VIDEO INSPECTION CAN BE DONE WITH PARTIAL FLOW. DEPTH OF THE FLOW SHALL NOT EXCEED:
  - 1. PIPES 6' - 10' - 20% OF THE PIPE DIAMETER.
  - 2. PIPES 12' - 24' - 25% OF THE PIPE DIAMETER.
  - 3. PIPES 27' AND UP - 30% OF THE PIPE DIAMETER.
5. THE CAMERA SHALL BE MOVED THROUGH THE PIPELINE IN A DOWNSTREAM DIRECTION AT A UNIFORM RATE BY MEANS OF POWER CABLE WINCHES OR SELF PROPELLED TRACTORS AT EACH MANHOLE, STOPPING AND ROTATING THE CAMERA HEAD AT EACH LATERAL CONNECTION, DEFECT, OR BOTH TO ALLOW FOR ADEQUATE EVALUATION. THE CONTRACTOR SHALL STOP WHEN NECESSARY TO ENSURE PROPER DOCUMENTATION OF THE PIPE CONDITION. IN NO CASE SHALL THE CAMERA BE PULLED AT A SPEED GREATER THAN 30' PER MINUTE. A CLEAR PICTURE SHALL BE PROVIDED LOOKING INTO EACH SERVICE CONNECTION, BOTH PRE AND POST VIDEO INSPECTION SHALL BE SUBMITTED TO THE ENGINEER.
6. MEASUREMENT FOR LOCATION OF DEFECTS SHALL BE ABOVE GROUND BY MEANS OF A MEASURING DEVICE. FOOTAGES SHOWN IN THE DIGITAL FILES SHALL COINCIDE WITH HORIZONTAL LENGTHS FROM STATIONING AS SHOWN ON THE PLANS. FOOTAGE MEASUREMENTS SHALL BEGIN AT THE CENTERLINE OF THE UPSTREAM MANHOLE OR STORM DRAIN ACCESS POINT, UNLESS PERMISSION IS GIVEN BY THE ENGINEER TO DO OTHERWISE.
7. THE CONTRACTOR SHALL CLEAN THE SEWER MAINS PRIOR TO VIDEO INSPECTING AS NECESSARY TO ADEQUATELY PERFORM THE VIDEO RECORDING OPERATIONS. IF THE CAMERA WILL NOT PASS THROUGH THE ENTIRE PIPELINE SECTION, THE CONTRACTOR SHALL RESET THE EQUIPMENT AT THE DOWNSTREAM MANHOLE AND ATTEMPT TO INSPECT THE SECTION OF PIPE FROM THE OPPOSITE DIRECTION. IF THE CAMERA FAILS TO PASS THROUGH THE ENTIRE SECTION, IT SHALL BE ASSUMED THAT AN OBSTRUCTION EXISTS. EFFORTS TO VIDEO RECORD THAT SECTION OF PIPE SHALL BE TEMPORARILY SUSPENDED AND THE CONTRACTOR SHALL NOTIFY THE ENGINEER. UPON REMOVAL OF THE OBSTRUCTION, THE CONTRACTOR SHALL COMPLETE THE INSPECTION.
8. IF AN OBSTRUCTION IS ENCOUNTERED DURING THE POST-CONSTRUCTION VIDEO INSPECTION, THE CONTRACTOR SHALL REMOVE THE OBSTRUCTION BY EXCAVATION, REPAIR, OR OTHER MEANS APPROVED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE, IN ORDER THAT VIDEO INSPECTION MAY CONTINUE.
9. THE SYSTEM USED TO MOVE THE CAMERA THROUGH THE PIPE SHALL NOT OBSTRUCT THE CAMERA'S VIEW. THE CONTRACTOR SHALL CALIBRATE THE MEASURING DEVICE EACH DAY WITH A KNOWN DISTANCE TO THE SATISFACTION OF THE ENGINEER PRIOR TO STARTING THE INSPECTION AND VIDEO RECORDING PROCESS.
10. THE CONTRACTOR SHALL OBTAIN THE ENGINEER'S APPROVAL FOR ANY ADDITIONAL POINT REPAIRS.

**SEWER NOTES - CONTINUE**

B. TOLERANCES ENCOUNTERED FOLLOWING INSPECTION SHALL BE ADDRESSED AS FOLLOWS:

1. FOR NEW UNDERGROUND SEWER INSTALLATION, THE MAXIMUM OPERATIONAL TOLERANCE FOR SAG SHALL BE 1/2". WHEN VIDEO RECORDED INSPECTION IS USED TO CHECK FOR SAG, A CALIBRATED 1/4" DIAMETER STEEL BAR/SAG GAGE OR APPROVED EQUAL DEVICE, MOUNTED IN FRONT OF THE CAMERA, SHALL BE USED TO MEASURE THE DEPTH OF THE SAG.
2. IF THE ENGINEER DETERMINES THAT THE DEFICIENCIES OR SAGS ARE NON-REPAIRABLE IN PLACE, THE AFFECTED PORTION(S) SHALL BE RECONSTRUCTED.
5. THE CONSTRUCTION OF PCC SEWER MAN-HOLE PER SDRSD SM-01 OR SM-02 POURED-IN-PLACE MAN-HOLE BASES SHALL BE A MONOLITHIC POUR FINISHED COMPLETED AT TIME OF POUR. EACH NEW MAN-HOLE SHALL BE VACUUM TESTED PRIOR TO BACK FILLING. THE TEST SHALL BE CONDUCTED IMMEDIATELY AFTER PLACEMENT OF PRE-CAST UNITS WITH POLYMER MORTAR/BUTYL SEALANT. ALL PIPES IN THE MAN-HOLE SHALL BE SECURELY PLUGGED. THE TEST HEAD SHALL BE PLACED AT THE INSIDE OF THE TOP PRE-CAST UNIT PRIOR TO THE INSTALLATION OF THE GRADE RING, AND THE SEAL INFLATED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.  
A VACUUM OF 10 PSI SHALL BE DRAWN AND THE VACUUM PUMP SHUT OFF. WITH THE VALVE CLOSED, THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO 9 PSI. THE MAN-HOLE SHALL PASS IF THE TIME IS GREATER THAN 75 SECONDS FOR SDRSD SM-2 AND 60 SECONDS FOR SDRSD SM-1 MAN-HOLE. IF THE MAN-HOLE FAILS THE INITIAL TEST, NECESSARY REPAIRS SHALL BE MADE WITH NO SHRINK GROUT WHILE VACUUM IS STILL BEING DRAWN. RETESTING SHALL PROCEED UNTIL A SATISFACTORY TEST IS OBTAINED.
6. THE CONSTRUCTION OF 4-INCH SEWER LATERALS SHALL BE PER SDRSD SS-01 AND SS-02. LATERALS SHALL NOT DISCHARGE DIRECTLY INTO MANHOLES. A CLEANOUT SHALL BE INSTALLED APPROXIMATELY 2 FEET INSIDE THE PROPERTY LINE.
7. THE CONSTRUCTION OF CUT-OFF WALLS SHALL BE PER SDRSD NO. SP-07 ON ALL SEGMENTS HAVING A SLOPE OF 20% TO 50%. CONSTRUCTION OF SLOPE PROTECTION WALLS SHALL BE PER SP-05.
8. ALL MAINS AND LATERALS SHALL BE CONSTRUCTED WITH 48 INCHES MINIMUM COVER, PROVIDED THAT THE INVERT OF THE LATERAL AT THE PROPERTY LINE IS ABOVE THE SOFFIT LINE OF THE SEWER MAIN.
9. THE FINAL LOCATION AND ELEVATION OF SEWER AND WATER LATERALS SHALL BE SHOWN ON ORIGINAL PLANS, PRIOR TO ACCEPTANCE FOR PUBLIC USE.
10. ALL DESIGN CHANGES OF SEWER MAINS SHALL BE APPROVED BY THE DISTRICT ENGINEER, IN WRITING, PRIOR TO ACCEPTANCE OF WORK.
11. FILL AREAS MUST BE COMPACTED TO 90% PRIOR TO PIPE INSTALLATION.
12. THE CONTRACTOR SHALL NOTIFY THE PRIVATE DEVELOPMENT CONSTRUCTION INSPECTION DEPARTMENT OR SAN DIEGO COUNTY SANITATION DISTRICT OFFICE 48 HOURS IN ADVANCE OF BEGINNING WORK TO ARRANGE FOR INSPECTION OF THE PROJECT.
13. THE CONTRACTOR SHALL PURCHASE A PERMIT FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS FOR ANY EXCAVATION WITHIN EXISTING COUNTY RIGHTS-OF-WAY.
14. CONTRACT RECORD DRAWINGS MUST BE SUBMITTED PRIOR TO FINAL ACCEPTANCE OF THE WORK. THEY MUST REFLECT POST CONSTRUCTION VERIFICATION OF PIPE LENGTHS AND INVERT ELEVATIONS.
15. THE CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF 1 YEAR AFTER THE DATE OF ACCEPTANCE OF THE WORK BY THE OWNER AND SHALL REPAIR OR REPLACE ANY OR ALL SUCH WORK TOGETHER WITH ANY OTHER WORK THAT MAY BE DISPLACED IN SO DOING, THAT MAY PROVE DEFECTIVE IN WORKMANSHIP AND/OR MATERIALS WITHIN THE 1-YEAR PERIOD FROM DATE OF ACCEPTANCE WITHOUT EXPENSE WHATSOEVER TO THE OWNER, ORDINARY WEAR AND TEAR, UNUSUAL ABUSE OR NEGLECT EXCEPTED.
16. THE CONTRACTOR SHALL FURNISH AND INSTALL, PER SPECIFICATIONS, THE APPROPRIATE BURIED UTILITY WARNING AND IDENTIFICATION TAPE ABOVE ALL PUBLIC SEWER LINES, INCLUDING SEWER LATERALS, LOCATED IN THE PUBLIC RIGHT-OF-WAY.
17. THE CONTRACTOR MUST CALL "DIG-ALERT" OF SOUTHERN CALIFORNIA TO HAVE UNDERGROUND SERVICE UTILITIES LOCATED PRIOR TO CONSTRUCTION. THE CALL WILL BE MADE AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION. 1-800-422-4133.
18. AT ALL MANHOLES, THE MINIMUM FALL ACROSS MANHOLE SHALL BE 0.1 FEET. AT ANGLES LARGER THAN 45 DEGREES, ALLOW 0.2 FEET FALL.
19. JOINT SEALANT AND EXTERIOR WATER PROOFING (WHERE SPECIFIED)  
POLYMER MORTAR SHALL BE USED TO PRE-CAST COMPONENTS ON ALL MANHOLES TO CREATE WATERTIGHT JOINTS TO RESIST INFILTRATION. THE MORTAR SHALL BE MIXED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS, AND SHALL NOT EXCEED FIVE PARTS SAND TO ONE PART POLYMER. ACCEPTABLE JOINT SEALANT PRODUCT SHALL BE SKIDDER 31 AND 32 HI-MOD GEL MANUFACTURED BY ENGARD COATINGS, AND CS 102 BUTYL GASKETS (ROPE FORM) MANUFACTURED BY CONCRETE SEALANTS OR APPROVED EQUAL.

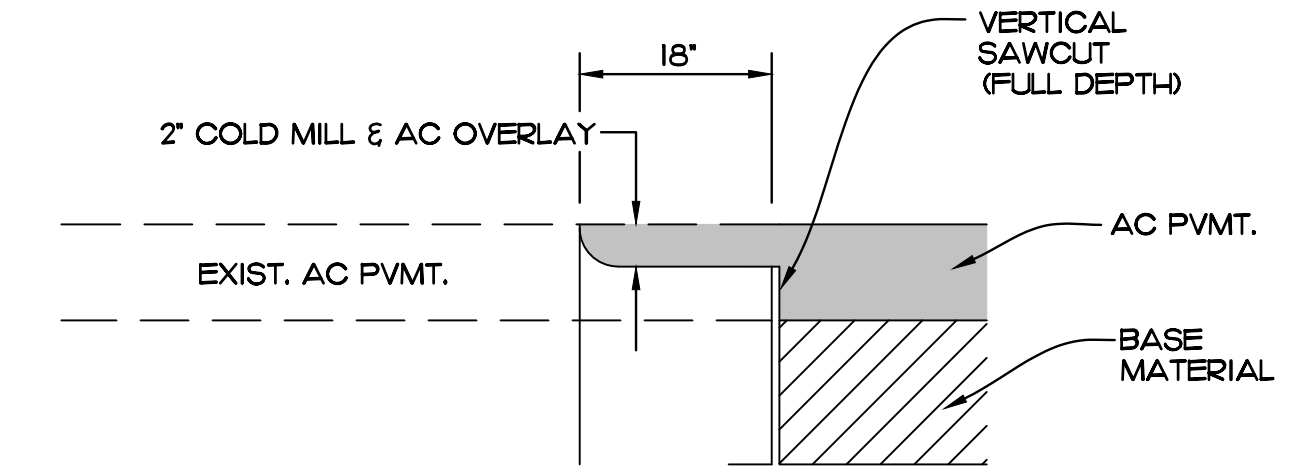
THE CONCRETE OR THE OTHER SURFACES THAT ARE TO ADHERE TO POLYMER SHALL BE FREE FROM DUST, LOOSE AGGREGATES, OIL, GREASE OR OTHER CONTAMINANTS.

ON ALL MANHOLES, CONTRACTOR SHALL APPLY WATERPROOFING AGENT CONSISTING OF A COAL TAR EMULSION ON ALL EXTERIOR SURFACES. THE EMULSION SHALL BE TNEVEC 46-465, OR APPROVED EQUAL. THE EMULSION SHALL BE APPLIED IN NO LESS THAN TWO COATS TO ACHIEVE A TOTAL DRY THICKNESS OF 25 MIL MINIMUM. THE EXTERIOR EMULSION COATINGS SHALL BE APPLIED PRIOR TO DELIVERY TO THE JOBSITE. IN ADDITION, A BITUMASTIC BAND 6 INCHES WIDE SHALL BE APPLIED AT ALL JOINTS ON EXTERIOR OF SUCH MANHOLES THAT SHALL BE WATERPROOFED. FULL COMPENSATION FOR THE WATERPROOFING OF MANHOLES SHALL BE AWARDED.

WHEN COMPLETED, ALL MANHOLES SHALL BE WATERTIGHT WITH ZERO INFILTRATION OF GROUNDWATER.

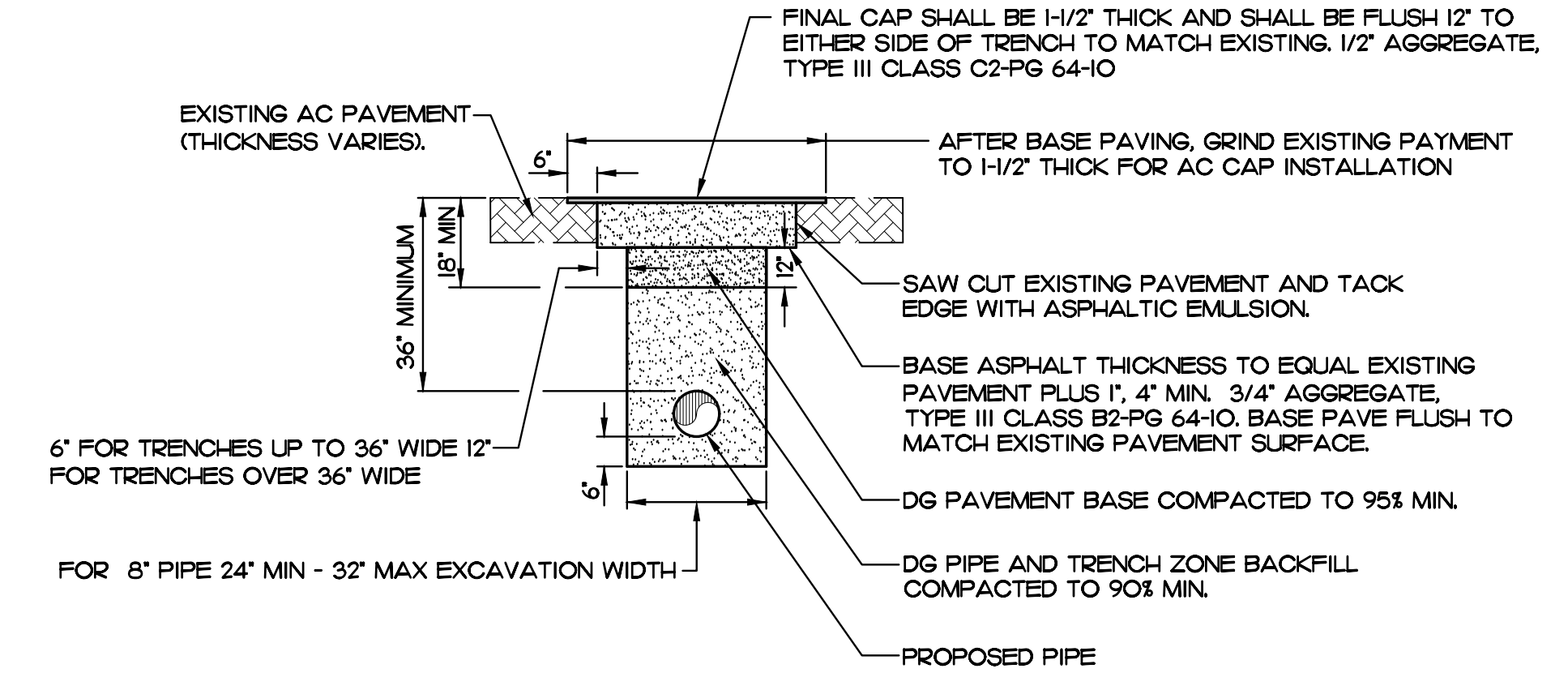
**HELIX WATER DISTRICT NOTES**

1. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT HELIX WATER DISTRICT 48 HOURS PRIOR TO COMMENCING WORK AT (619) 596-3860 AND UNDERGROUND SERVICE ALERT FOR LOCATION OF EXISTING WATER FACILITIES AT 1-800-422-4133.
2. CONTRACTOR TO PROTECT ALL EXISTING HELIX WATER DISTRICT FACILITIES AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO HELIX WATER DISTRICT FACILITIES AS A RESULT OF HIS/HER OPERATION, AND SHALL IMMEDIATELY CALL THE HELIX WATER DISTRICT WHO WILL REPAIR ANY DAMAGE AND WILL BILL THE DEVELOPER FOR THE COST INCURRED. CONTRACTOR TO PROVIDE CONTINUOUS WATER SERVICE TO ALL WATER ACCOUNTS SHOWN OR NOT SHOWN ON THESE PLANS DURING ALL PHASES OF CONSTRUCTION.
3. APPROVAL/REVIEW OF PLANS BY HELIX WATER DISTRICT DOES NOT CONSTITUTE RESPONSIBILITY FOR ACCURACY OF INFORMATION NOR LOCATIONS OF ANY EXISTING UTILITIES.
4. DEVELOPER SHALL BE RESPONSIBLE FOR THE COST OF RELOCATING ANY WATER LATERALS, FIRE HYDRANTS OR FACILITIES THAT FALL WITHIN DRIVEWAYS OR OTHERWISE CONFLICT WITH ANY PROPOSED FACILITIES OR IMPROVEMENTS.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OR ADJUSTMENT OF ANY NEW OR EXISTING WATER SERVICE APPURTENANCES, MANHOLES, GATE VALVE COVERS, OR METER BOXES TO NEW FINISH GRADE.
6. ALL UNDERGROUND UTILITIES AND LATERALS SHALL BE INSTALLED BEFORE CONSTRUCTION OF CURBS, CONCRETE CROSS GUTTERS, SIDEWALK OR SURFACING OF STREETS.
7. DEVELOPER AGREES THAT IF THEY, THEIR EMPLOYEES, AGENTS, OR ANY INDEPENDENT CONTRACTOR OR SUBCONTRACTORS SHALL DO WATER OTHER THAN THROUGH AN AUTHORIZED WATER METER, DEVELOPER SHALL PAY A CHARGE, DETERMINED BY HELIX WATER DISTRICT, PER OCCURRENCE WILL BE IMPOSED ON ANY PERSON OR COMPANY WHO OPERATES ANY PART OF THE HELIX WATER DISTRICT WATER SYSTEM WITHOUT PROPER AUTHORIZATION.
9. FOR WORK OVER EXISTING WATER FACILITIES, HEAVY EQUIPMENT (ABOVE H2O LOADING) SHALL NOT BE USED WHEN COVER OVER THE WATER MAIN IS LESS THAN THREE (3) FEET THROUGH ALL PHASES OF CONSTRUCTION, INCLUDING THE REMOVAL AND/OR INSTALLATION OF PAVEMENT SECTIONS.
10. DEVELOPER/CONTRACTOR SHALL INSTALL ONLY HIGH EFFICIENCY APPLIANCES, USE ONLY HIGH EFFICIENCY TECHNOLOGIES AND LANDSCAPE USING LOW WATER USE PLANTS. DEVELOPER/CONTRACTOR SHALL COORDINATE THE INSTALLATION OF WATER EFFICIENT APPLIANCES, TECHNOLOGIES AND LANDSCAPING WITH HELIX WATER DISTRICT REPRESENTATIVE. PLEASE CONTACT MICHELLE CURTIS AT (619) 667-6261 FOR INSPECTION AND COORDINATION.
11. CONTRACTOR IS TO COORDINATE THE LOCATION OF ANY PROPOSED FIRE PROTECTION FACILITIES WITH THE FIRE DEPARTMENT OF JURISDICTION, PRIOR TO INSTALLATION OF THE FACILITIES.
12. COMMERCIAL AND MULTIPLE DWELLING PROPERTIES WITH MORE THAN 5,000 SQUARE FEET OF IRRIGATED LANDSCAPE MUST HAVE A SEPARATE WATER METER FOR LANDSCAPE PURPOSES.
13. ANY EXISTING WATER SERVICES SERVING THE PROPERTY THAT WILL NOT BE USED SHALL BE ABANDONED BY THE DISTRICT AT THE OWNER'S EXPENSE.
14. ANY FINISHED SURFACE IMPROVEMENT OTHER THAN ASPHALT ABOVE THE PIPELINE OR UNDERGROUND FACILITIES, WILL REQUIRE AN ENCROACHMENT REMOVAL AGREEMENT. PERMEABLE FINISHED SERVICE IMPROVEMENTS ARE PROHIBITED WITHIN HELIX WATER DISTRICT WATER MAIN EASEMENT.
15. TRENCH REPAIR IS TO BE BY HELIX WATER DISTRICT TRENCH DETAIL OR THE CITY OR COUNTY TRENCH REPAIR DETAIL, WHICHEVER IS MORE STRINGENT.
16. BACKFLOW PREVENTION WILL BE REQUIRED ON WATER METERS SERVING COMMERCIAL PROPERTIES, PROPERTIES WITH FIRE SPRINKLER SYSTEMS AND/OR ON LANDSCAPE IRRIGATION WATER METERS. CONTACT THE DISTRICT'S CROSS-CONNECTION CONTROL COORDINATOR AT 619 667-6224. SUBMIT CUT SHEETS OF THE PROPOSED BACKFLOW PREVENTION DEVICES FOR APPROVAL.
17. RESIDENTIAL DWELLINGS WITH FIRE PROTECTION SYSTEMS SHALL HAVE A TESTABLE BACKFLOW PREVENTION ASSEMBLY (BPA) OR A PASSIVE PURGE SYSTEM INSTALLED FOR SYSTEM PROTECTION. COORDINATE APPROVAL OF THE BPA WITH THE DISTRICT'S CROSS CONNECTION CONTROL COORDINATOR AT 619-667-6224.
18. ALL WATER SERVICE LATERALS, FIRE SERVICE LATERALS, FIRE HYDRANT LATERALS, BLOW-OFF LATERALS AND WATER MAINS THAT CROSS ANY BIO-RETENTION SWALE, MUST BE WITHIN A HARDENED SURFACE (CONCRETE).
19. HELIX WATER DISTRICT WILL ABANDON EXISTING 3/4" WATER SERVICES APPROXIMATELY EIGHT (8) WEEKS AFTER RECEIPT OF ESTIMATED COST.
20. HELIX WATER DISTRICT WILL INSTALL THE PROPOSED 6" FIRE SERVICE APPROXIMATELY EIGHT (8) WEEKS AFTER RECEIPT OF ESTIMATED COST. CONTRACTOR TO INSTALL BACKFLOW PREVENTION DEVICE.
21. ROOF DRAINS OR DOWNSPOUTS FROM HOMES OR BUILDINGS ARE PROHIBITED FROM DISCHARGING WATER IN OR NEAR WATER METER BOXES.

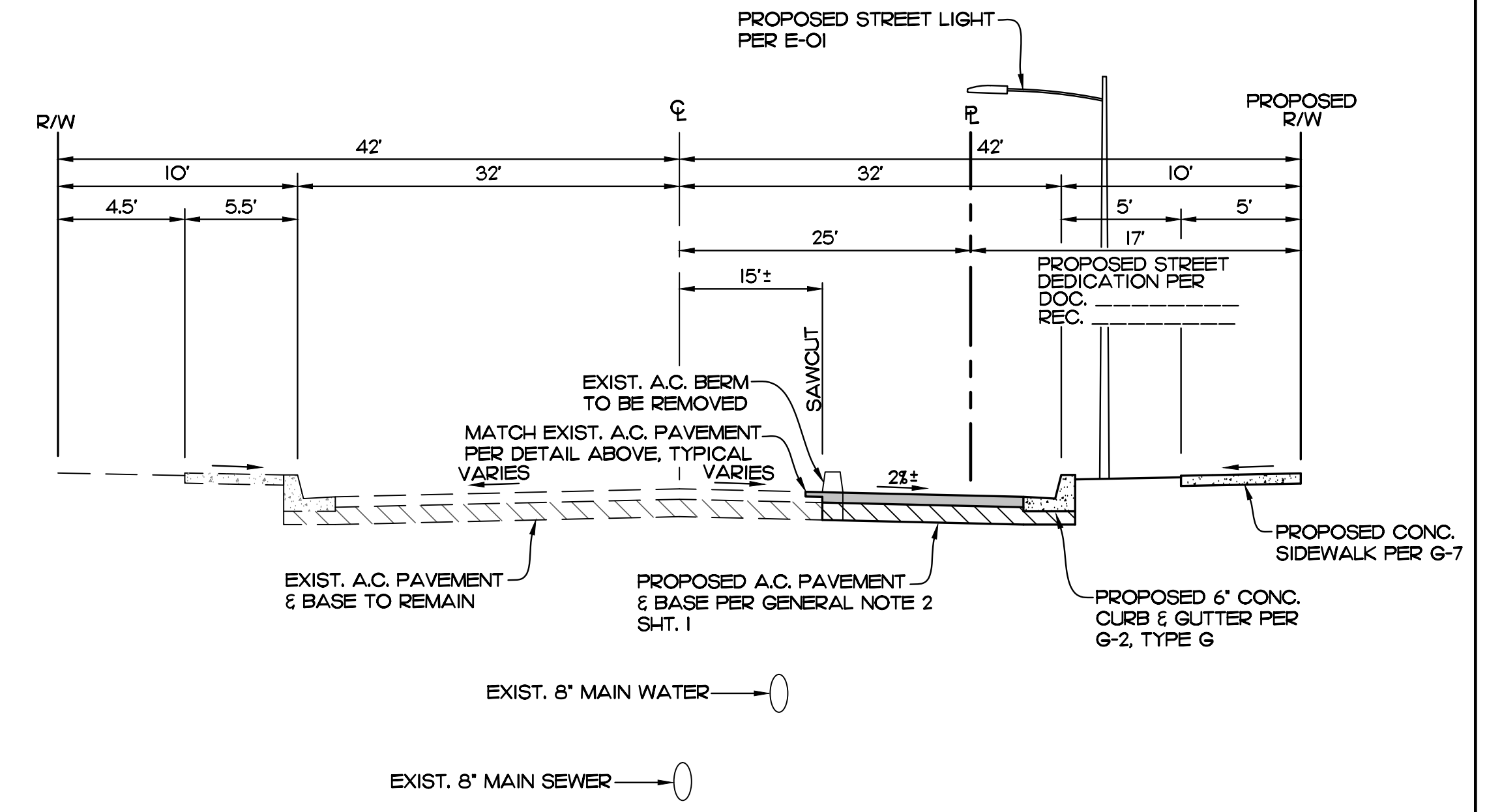


**AC PAVEMENT MATCH**

**1** DETAIL  
NO SCALE



**2** TRENCH DETAIL  
NO SCALE



**TYPICAL SECTION - BRADLEY AVENUE**

NO SCALE

**RECORD PLAN**

BY: SON P. NGUYEN DATE: \_\_\_\_\_  
R.C.E. 86249 EXP. 03-31-21

**PRIVATE CONTRACT**

SHEET **2** COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS SHEETS **6**

NOTES / DETAILS / SECTIONS FOR:

**BRADLEY AVENUE**

CALIFORNIA COORDINATE INDEX 238-1785

APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER BY: \_\_\_\_\_

ENGINEER OF WORK: SON P. NGUYEN R.C.E. 86249

**PDS2019-LDPIIP-60071**

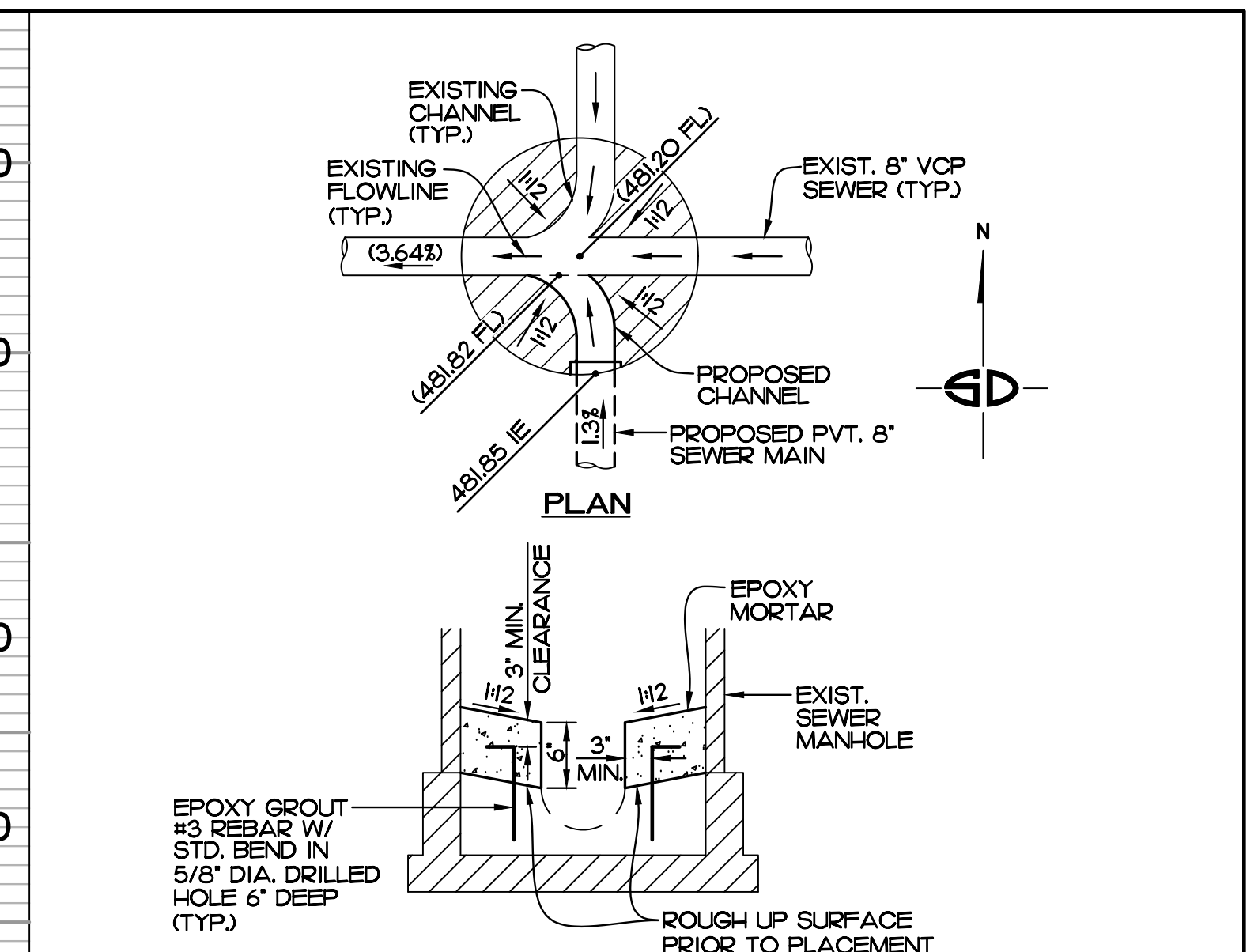
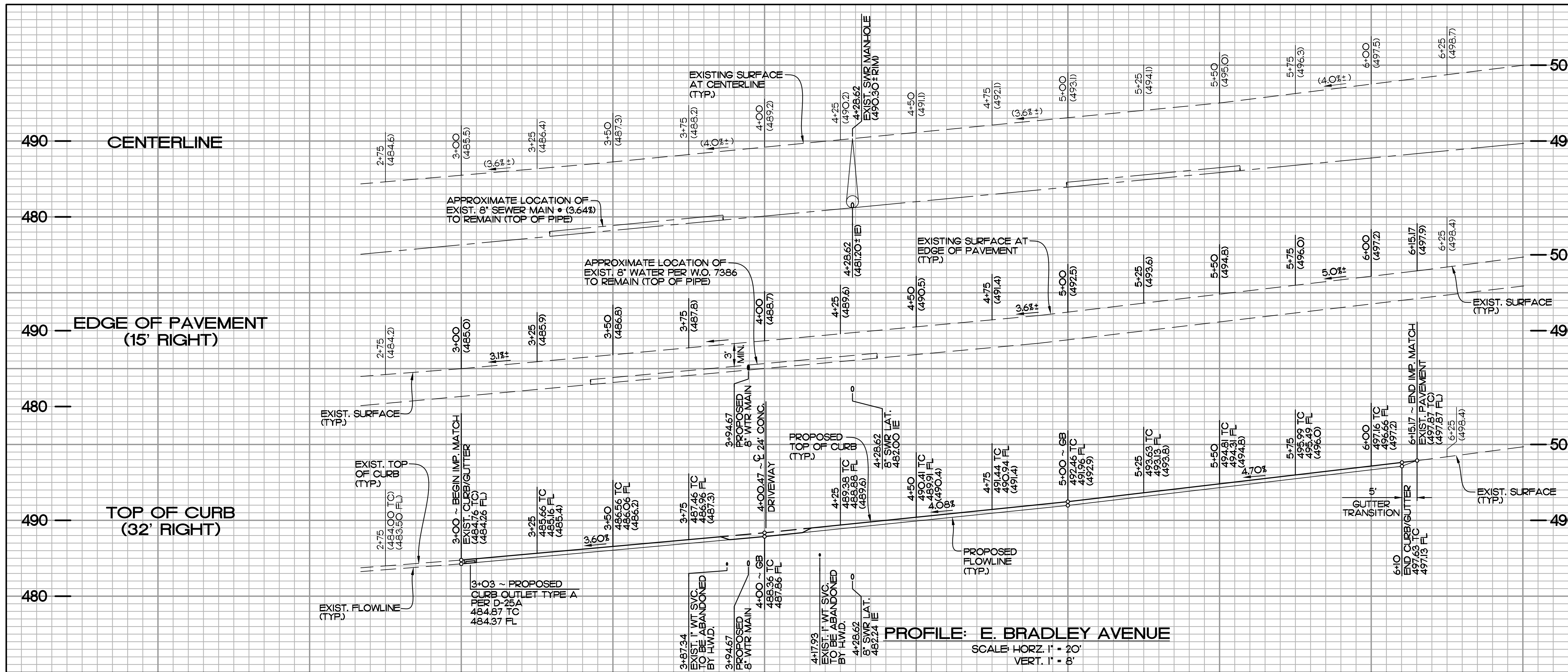
COUNTY APPROVED CHANGES				BENCH MARK	
No.	Description	Approved by	Date	DESCRIPTION	STANDARD BENCHMARK # 91
				LOCATION:	TOP OF CURB, N END CB RETURN AT NW CORNER GRETA STREET AND FIRST STREET
				RECORD FROM:	CITY OF EL CAJON
				ELEVATION:	515.161 DATUM: NAVD 88

**ENGINEER OF WORK**  
**Snipes-Dye associates**  
civil engineers and land surveyors  
8348 CENTER DRIVE, STE. G, LA MESA, CA 91942  
TELEPHONE (619) 697-9234 FAX (619) 460-2033

SON P. NGUYEN R.C.E. 86249 EXPIRES 03-31-21

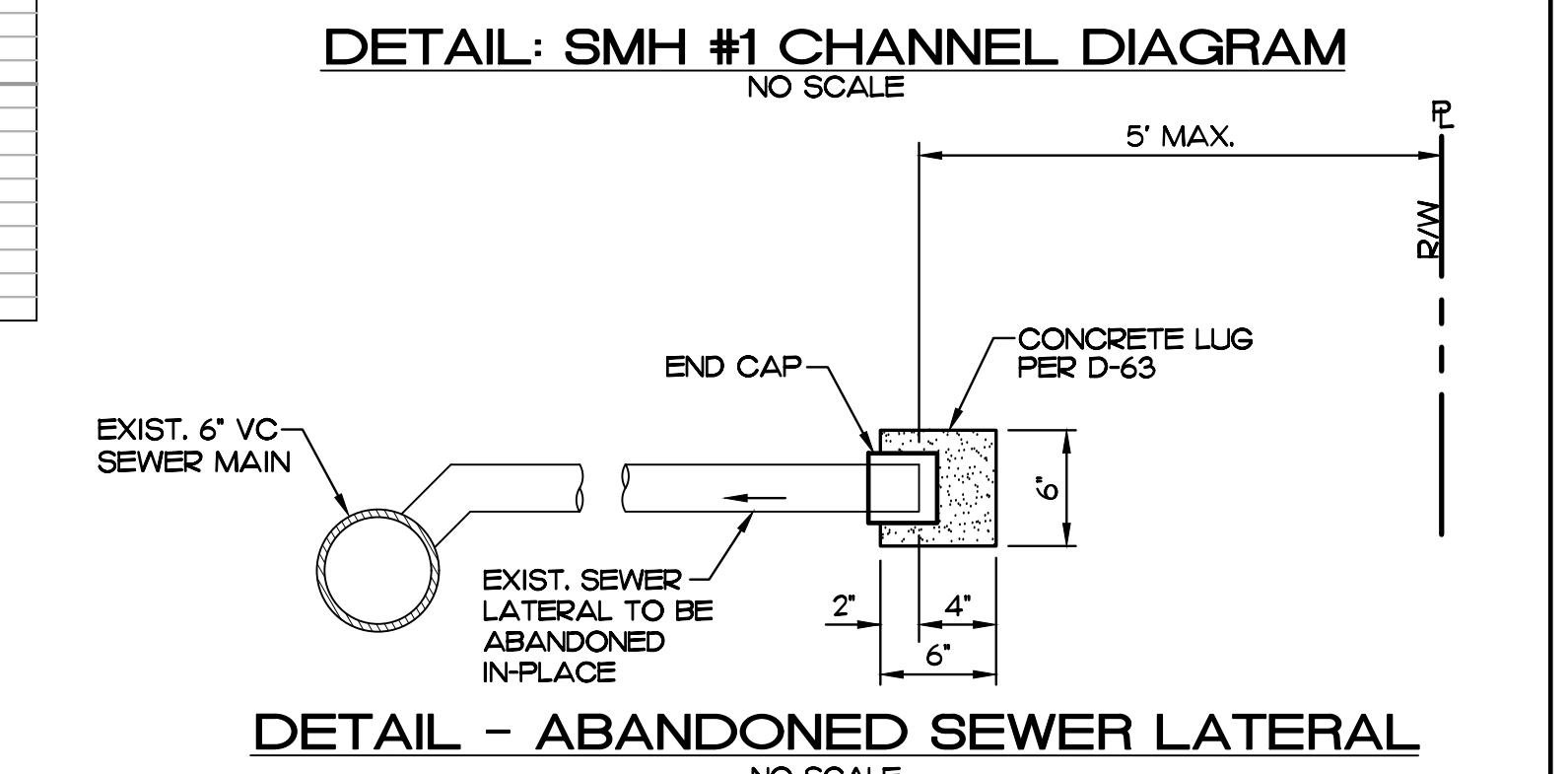
ENGINEER'S NAME - SNIPES-DYE ASSOCIATES  
PHONE NO. (619) 697-9234





**SD COUNTY SANITATION DISTRICT CONST. NOTES**

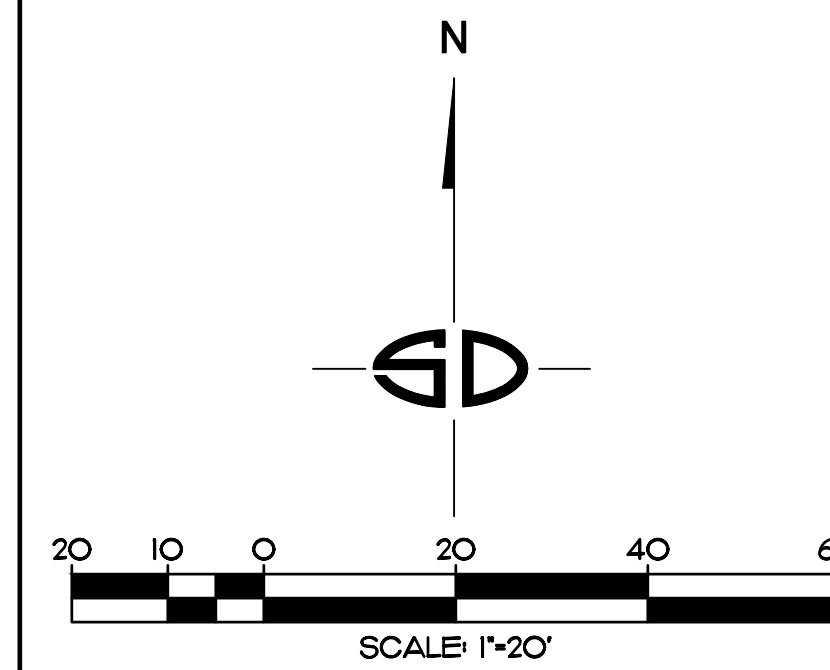
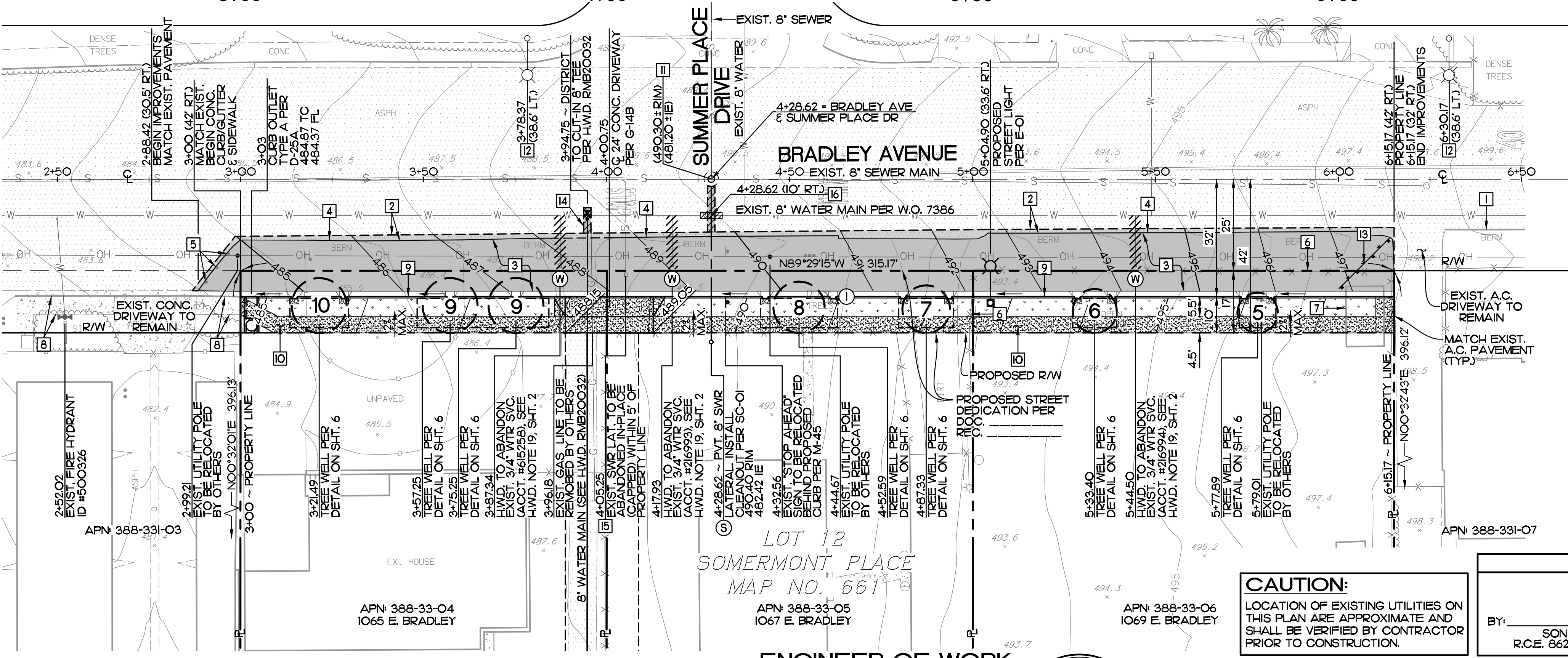
- CONTRACTOR SHALL VERIFY INVERT ELEVATIONS PRIOR TO CONSTRUCTION OF PROPOSED SEWER MANHOLE. CONTRACTOR SHALL NOTIFY ENGINEER-OF-WORK OF ANY DIFFERENCES IN THE INVERT ELEVATIONS.
- CONTRACTOR SHALL FURNISH A FLOW CONTAINMENT/CONTROL PLAN (CONNECTION POINTS OF EXISTING PIPE TO NEW PIPE) TO THE SAN DIEGO COUNTY SANITATION DISTRICT FOR REVIEW AND APPROVAL. CONTACT DAVID WILLIAMS AT (658) 694-2678.
- STANDBY IS REQUIRED BY THE SAN DIEGO COUNTY SANITATION DISTRICT FIELD OFFICE. CONTACT THE DISTRICT FIELD OFFICE FIVE (5) DAYS IN ADVANCE AT (619) 496-7100 (GARY HARRIS).
- THE DEVELOPER IS RESPONSIBLE FOR ANY AND ALL SEWER SPILLS THAT MAY OCCUR AS A RESULT OF THE SEWER MAIN INSTALLATION AND/OR BY-PASS PUMPING, AND IS RESPONSIBLE FOR ANY FINES IMPOSED BY THE REGULATORY AGENCIES THAT OCCUR AS A RESULT OF THE SEWER SPILLS.



**SEWER LATERAL CONSTRUCTION NOTES**

- THE APPLICANT/OWNER PROPOSING TO CONNECT TO SAN DIEGO COUNTY SANITATION DISTRICT (DISTRICT) SEWER SYSTEM SHALL OBTAIN A COMMERCIAL WASTEWATER DISCHARGE PERMIT FROM THE DEPARTMENT OF PUBLIC WORKS. THE APPLICANT/OWNER SHALL MAKE A WRITTEN APPLICATION TO WASTEWATER MANAGEMENT THROUGH DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES (BUILDING PERMIT COUNTER). FOR INFORMATION, CONTACT THE WASTEWATER COUNTER AT 858-495-5717. THE CONNECTION (SADDLE ONLY) TO THE DISTRICT SEWER SHALL BE INSTALLED BY DISTRICT PERSONNEL ONLY. FOR FIELD COORDINATION, PHONE THE DISTRICT FIELD OFFICE FIVE (5) DAYS IN ADVANCE AT 619-496-7100. ALL COST ASSOCIATED WITH PERMITS AND CONSTRUCTION OF THE SEWER LATERAL SHALL BE BORNE BY THE PROPERTY OWNER.
- THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THAT NO PRIVATE RESIDENCES ARE SUBJECT TO A SEWAGE BACKUP OR SPILL DURING SEWER LATERAL CONNECTION.
- THE CONTRACTOR SHALL BE LIABLE FOR ALL CLEANUP, DAMAGES, AND RESULTANT FINES IN THE EVENT OF A SEWAGE SPILL.
- ALL SEWER LATERAL RELATED WORK SHALL CONFORM TO SAN DIEGO REGIONAL STANDARD DRAWINGS SP-OI, SS-OI OR SS-O2, SS-O3, SS-O4 AND SC-OI (TYPE B).
- THE ONSITE SEWER LATERAL AND CLEANOUT AT THE PROPERTY LINE IS TO BE APPROVED, PERMITTED, AND INSPECTED BY THE DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES BUILDING DIVISION.
- THE LETTER 'S' SHALL BE STAMPED IN THE CURB AT ALL SEWER LATERAL LOCATIONS. THE LETTER 'S' SHALL BE STAMPED IN THE GUTTER WHEN THERE IS NO TYPE 'G' CURB.

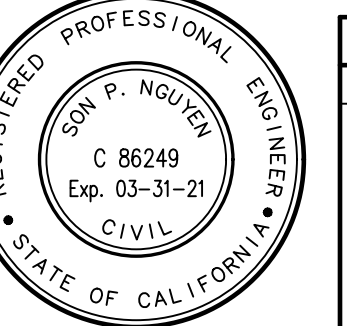
- KEY NOTES**
- IMPROVEMENTS**
- EXIST. A.C. BERM TO REMAIN.
  - SAWCUT & MATCH EXIST. A.C. PAVEMENT PER DETAIL 1, SHT. 2, TYPICAL.
  - PROPOSED A.C. PAVEMENT & BASE. SEE GENERAL NOTE NO. 2 ON SHT. 1.
  - EXIST. A.C. BERM TO BE REMOVED, TYPICAL.
  - EXIST. BARRICADES TO BE REMOVED.
  - EXIST. WOOD FENCE TO BE REMOVED.
  - EXIST. SHED TO BE REMOVED.
  - EXIST. CONC. CURB/GUTTER & SIDEWALK TO REMAIN.
  - 6' CONC. CURB & GUTTER PER G-02, TYPE G.
  - PROPOSED CONCRETE SIDEWALK PER G-07, G-09 & G-10.
  - EXIST. SEWER MANHOLE TO REMAIN, CONNECT NEW 8" SEWER LATERAL PER DETAIL TOP RIGHT.
  - EXIST. STREET LIGHT TO REMAIN.
  - CONTINUES BARRICADE PER M-09.
  - H.W.D. TRENCH REPAIR PER DETAIL 2, SHT. 2.
  - EXIST. SEWER LATERAL TO BE ABANDONED PER DETAIL.
  - CONTRACTOR TO INSTALL PIPE ENCASUREMENT FOR EXIST. WATER MAIN PER W.A.S. WP-08.



FOR WORK ON-SITE, SEE GRADING PERMIT NO. PDS2019-LDGRMJ-

CURB DATA				
DELTA/BRG	RADIUS	LENGTH	REMARK	
1	N 89°29'15"W	-	315.11'	6' CURB & GUTTER PER G-2

**ENGINEER OF WORK**  
**Snipes-Dye associates**  
 civil engineers and land surveyors  
 8348 CENTER DRIVE, STE. G, LA MESA, CA 91942  
 TELEPHONE (619) 697-9234 FAX (619) 460-2033



**CAUTION:**  
 LOCATION OF EXISTING UTILITIES ON THIS PLAN ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

**RECORD PLAN**

BY: SON P. NGUYEN R.C.E. 86249 EXP. 03-31-21

DATE: \_\_\_\_\_

**COUNTY APPROVED CHANGES**

No.	Description	Approved by	Date

**BENCH MARK**

DESCRIPTION: STANDARD BENCHMARK # 91

LOCATION: TOP OF CURB, N END CB RETURN AT NW CORNER Greta Street and First Street

RECORD FROM: CITY OF EL CAJON

ELEVATION: 515.161 DATUM: NAVD 88

**PRIVATE CONTRACT**

SHEET 3 COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS SHEETS 6

IMPROVEMENT PLAN / PROFILE FOR:  
**BRADLEY AVENUE**

CALIFORNIA COORDINATE INDEX 238-1785

APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER

ENGINEER OF WORK  
 SON P. NGUYEN R.C.E. 86249

DATE: \_\_\_\_\_

PDS2019-LDPIIP-60071

ENGINEER'S NAME - SNIPES-DYE ASSOCIATES  
 PHONE NO. (619) 697-9234

HWD RMB20032

**STORM WATER MANAGEMENT NOTES**

- DURING THE RAINY SEASON THE AMOUNT OF EXPOSED SOIL ALLOWED AT ONE TIME SHALL NOT EXCEED THAT WHICH CAN BE ADEQUATELY PROTECTED BY THE PROPERTY OWNER IN THE EVENT OF A RAINSTORM. 125% SHALL BE RETAINED ON THE JOB SITE IN A MANNER THAT ALLOWS FULL DEPLOYMENT AND COMPLETE INSTALLATION IN 48 HOURS OR LESS ON A FORECAST RAIN.
- NO AREA BEING DISTURBED SHALL EXCEED 50 ACRES AT ANY GIVEN TIME WITHOUT DEMONSTRATING TO THE SAN DIEGO COUNTY D.P.W. DIRECTOR'S SATISFACTION THAT ADEQUATE EROSION AND SEDIMENT CONTROL CAN BE MAINTAINED. ANY DISTURBED AREA THAT IS NOT ACTIVELY GRADED FOR 15 DAYS MUST BE FULLY PROTECTED FROM EROSION UNTIL ADEQUATE LONG-TERM PROTECTIONS ARE INSTALLED. THE DISTURBED AREA SHALL BE INCLUDED WHEN CALCULATING THE ACTIVE DISTURBANCE AREA. ALL EROSION CONTROL MEASURE SHALL REMAIN INSTALLED MAINTAINED DURING ANY INACTIVE PERIOD.
- THE PROPERTY OWNER IS OBLIGATED TO INSURE COMPLIANCE WITH ALL APPLICABLE STORM WATER REGULATIONS AT ALL TIMES. THE BMP'S (BEST MANAGEMENT PRACTICES) THAT HAVE BEEN INCORPORATED INTO THIS PLAN SHALL BE IMPLEMENTED AND MAINTAINED TO EFFECTIVELY PREVENT THE POTENTIALLY NEGATIVE IMPACTS OF THIS PROJECT'S CONSTRUCTION ACTIVITIES ON STORM WATER QUALITY. THE MAINTENANCE OF THE BMP'S IS THE PERMITEE'S RESPONSIBILITY, AND FAILURE TO PROPERLY INSTALL AND MAINTAIN THE BMP'S MAY RESULT IN ENFORCEMENT ACTION BY THE COUNTY OF SAN DIEGO OR OTHERS. IF INSTALLED BMP'S FAIL, THEY MUST BE REPAIRED OR REPLACED WITH AN ACCEPTABLE ALTERNATE WITHIN 24 HOURS, OR AS SOON AS SAFE TO DO SO.
- A NOTICE OF INTENT (NOI) HAS BEEN, OR WILL BE FILED WITH THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) AND THAT A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN OR WILL BE PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF CALIFORNIA GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY (PERMIT NO. CAS000002) FOR ALL OPERATIONS ASSOCIATED WITH THESE PLANS. THE NOI NUMBER ASSIGNED BY SWRCB FOR THIS PROJECT IS \_\_\_\_\_ THE PERMITEE SHALL KEEP A COPY OF THE SWPPP ON SITE AND AVAILABLE FOR REVIEW BY COUNTY.

**EMERGENCY EROSION CONTROL MEASURES NOTES**

- ALL BUILDING PADS TO BE DIKED AND THE DIKES MAINTAINED TO PREVENT WATER FROM FLOWING FROM THE PAD UNTIL THE DRIVEWAYS ARE PAVED AND WATER CAN FLOW FROM THE PADS WITHOUT CAUSING EROSION OR CONSTRUCT DRAINAGE FACILITIES TO THE SATISFACTION OF THE COUNTY DEPARTMENT OF PUBLIC WORKS THAT WILL ALLOW WATER TO DRAIN FROM THE PAD WITHOUT CAUSING EROSION.
- TOPS OF ALL SLOPES TO BE DIKED OR TRENCHED TO PREVENT WATER FROM FLOWING OVER THE CREST OF THE SLOPES.
- MANUFACTURED SLOPES AND PADS SHALL BE ROUNDED VERTICALLY AND HORIZONTALLY AS APPROPRIATE TO BLEND WITH THE SURROUNDING TOPOGRAPHY.
- AS SOON AS CUTS OR EMBANKMENTS ARE COMPLETED, BUT NOT LATER THAN OCTOBER 1, ALL CUT AND FILL SLOPES SHALL BE STABILIZED WITH A HYDROMULCH WITH BINDER MIXTURE OR AN EQUAL TREATMENT APPROVED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS. BETWEEN OCTOBER 1, AND APRIL 15, APPROVED SLOPE PROTECTION MEASURES SHALL PROCEED IMMEDIATELY BEHIND THE EXPOSURE OF CUT SLOPES AND / OR THE CREATION OF EMBANKMENT SLOPES, INCLUDING LINEAR BMP'S @ 10' MIN. INTERVAL (SEE CGP). (IE WATTLES).
- CATCH BASINS, DESILTING BASINS AND STORM DRAIN SYSTEMS SHALL BE INSTALLED TO THE SATISFACTION OF THE COUNTY DEPARTMENT OF PUBLIC WORKS.
- GRAVEL BAG CHECK DAMS TO BE PLACED IN A MANNER APPROVED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS IN UNPAVED STREETS WITH GRADIENTS IN EXCESS OF 2% AND ON OR IN OTHER GRADED OR EXCAVATED AREAS AS REQUIRED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS.
- THE DEVELOPER TO MAINTAIN THE PLANTING AND EROSION CONTROL MEASURES DESCRIBED ABOVE UNTIL RELIEVED OF SAME BY THE COUNTY DEPARTMENT OF PUBLIC WORKS. THE DEVELOPER TO REMOVE ALL SOIL INTERCEPTED BY THE GRAVEL BAGS, CATCH BASINS AND DESILTING BASINS AND KEEP THESE FACILITIES CLEAN AND FREE OF SILT AND SAND AS DIRECTED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS. THE DEVELOPER SHALL REPAIR ANY ERODED SLOPES AS DIRECTED BY THE COUNTY DEPARTMENT OF PUBLIC WORKS.

**BFM'S AND SFM'S NOTES**

THE USE OF BFM'S IS SUBJECT TO THE FOLLOWING LIMITATIONS AND RESTRICTIONS.

- APPLICATION RATES SHALL BE 3500 POUNDS PER ACRE MINIMUM FOR 2:1 OR SHALLOWER SLOPES AND 4000 POUNDS PER ACRE FOR SLOPES STEEPER THAN 2:1.
- BFM SHALL BE APPLIED AT LEAST 24 HOURS BEFORE OR AFTER RAINFALL.
- THE SITE MUST BE PROTECTED WITH BROW DITCHES AND / OR DIVERSION BERMS AT THE TOP OF SLOPES TO DIVERT FLOW FROM THE FACE OF THE SLOPE.
- BFM SHALL BE APPLIED TO PROVIDE 100% COVERAGE (I.E. APPLICATION FROM MULTIPLE ANGLES).
- FOR PERMANENT EROSION CONTROL PURPOSES, BFM MUST BE INSTALLED CONJUNCTION WITH SEEDED EROSION CONTROL VEGETATION.
- A LETTER FROM THE HYDROSEED CONTRACTOR CERTIFYING THAT THE BFM HAS BEEN INSTALLED IN ACCORDANCE WITH THE APPROVED APPLICATION RATES AND COVERAGE REQUIREMENTS SHALL BE SUBMITTED TO THE COUNTY INSPECTOR FOR APPROVAL.

THE USE OF SFM'S IS SUBJECT TO THE FOLLOWING LIMITATIONS AND RESTRICTIONS.

- SFM MAY BE USED FOR TEMPORARY EROSION CONTROL FOR DISTURBED AREAS WITH A SLOPE RATIO OF 1 VERTICAL TO 2 HORIZONTAL OR SHALLOWER, INCLUDING PAD AND SEPTIC FIELD AREAS.
- THE SFM SHALL BE APPLIED AT LEAST 24 HOURS BEFORE OR AFTER RAINFALL AND SHALL BE APPLIED TO PROVIDE 100% COVERAGE (I.E. APPLIED FROM MULTIPLE DIRECTIONS AND ANGLES).
- THE APPLICATION AREA MUST BE PROTECTED BY BROW DITCHES AND OR DIVERSION BERMS AT TOP OF SLOPES TO DIVERT FLOW FROM THE SURFACE OF THE PROTECTED SLOPE.
- FOR PERMANENT EROSION CONTROL PURPOSES, SFM MUST BE INSTALLED IN CONJUNCTION WITH SEEDED EROSION CONTROL VEGETATION OR HAND PLANTINGS. AS WITH ALL OTHER APPLICATIONS, SFM WILL NOT BE CONSIDERED PERMANENT UNTIL 70% VEGETATION ESTABLISHMENT.
- COVERAGE AND CONCENTRATION FOR EACH AREA COVERED, THE MINIMUM APPLICATION VOLUME SHALL BE 10 GALLONS NON-TOXIC WATER-PERMEABLE SOIL-STABILIZING LIQUID EMULSION WITH 3,000 LBS OF HYDRAULIC MULCH. THE EMULSION MUST BE DESIGNED TO PROTECT SOIL, PREVENT EROSION, AND FLOCCULATE (CLUMP) SEDIMENT.
- A LETTER FROM THE HYDROSEED CONTRACTOR CERTIFYING THE SFM WAS INSTALLED IN ACCORDANCE WITH APPROVED APPLICATION RATES, COVERAGE AND MANUFACTURER'S DILUTION RATIO SHALL BE SUBMITTED TO THE COUNTY INSPECTOR FOR APPROVAL.

**BMP STENCIL PLACEMENT NOTES**

- ALL STORM DRAIN INLETS AND CATCH BASINS WITHIN THE PROJECT AREA SHALL HAVE A STENCIL OR TILE PLACED WITH PROHIBITIVE LANGUAGE (SUCH AS "NO DUMPING-1 LIVE IN SAN DIEGO RIVER") AND/OR GRAPHICAL ICONS TO DISCOURAGE ILLEGAL DUMPING.
- SIGNS AND PROHIBITIVE LANGUAGE AND/OR GRAPHICAL ICONS, WHICH PROHIBIT ILLEGAL DUMPING, MUST BE POSTED AT PUBLIC ACCESS POINTS ALONG CHANNELS AND CREEKS WITHIN THE PROJECT AREA.
- LEGIBILITY OF STENCILS, TILES AND SIGNS MUST BE MAINTAINED AND TILES MUST BE PLACED FLUSH WITH THE TOP OF CONCRETE TO REDUCE TRIPPING BY PEDESTRIANS.

**SILTATION AND SEDIMENT CONTROL MEASURES NOTES**

- THE SEDIMENT BASINS SHALL BE PROVIDED AT THE LOWER END OF EVERY DRAINAGE AREA PRODUCING SEDIMENT RUNOFF. THE BASINS SHALL BE MAINTAINED AND CLEANED TO DESIGN CONTOURS AFTER EVERY RUNOFF PRODUCING STORM. THE BASINS SHOULD BE SEMI-PERMANENT STRUCTURES THAT WOULD REMAIN UNTIL SOIL STABILIZING VEGETATION HAS BECOME WELL ESTABLISHED ON ALL ERODIBLE SLOPES.
- SEDIMENTATION BASINS MAY NOT BE REMOVED OR MADE INOPERATIVE WITHOUT PRIOR APPROVAL OF THE COUNTY ENGINEER.
- SEWER OR STORM DRAIN TRENCHES THAT ARE CUT THROUGH BASIN DIKES OR BASIN INLET DIKES SHALL BE PLUGGED WITH GRAVEL BAGS FROM TOP OF PIPE TO TOP OF DIKE.
- ALL UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF GRAVEL BAGS WITH A TOP ELEVATION LEVEL WITH AND TWO GRAVEL BAGS BELOW THE GRADED SURFACE OF THE STREET. GRAVEL BAGS ARE TO BE PLACED WITH LAPPED COURSES. THE INTERVALS PRESCRIBED BETWEEN GRAVEL BAGS BLOCKING SHALL DEPEND ON THE SLOPE OF THE GROUND SURFACE, BUT NOT TO EXCEED THE FOLLOWING:

GRADE OF THE STREET	INTERVAL AS REQUIRED
LESS THAN 2%	100 FEET
2% TO 4%	50 FEET
4% TO 10%	25 FEET
OVER 10%	

- AFTER UTILITY TRENCHES ARE BACKFILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDING SLIGHTLY TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTERVALS WHERE TRENCHES ARE NOT ON THE CENTERLINE OF A CROWNED STREET.
- ALL BUILDING PADS SHOULD BE SLOPED TOWARDS THE DRIVEWAYS AND VELOCITY CHECK DAMS PROVIDED AT THE BASE OF ALL DRIVEWAYS DRAINING INTO THE STREET.
- PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED GRADED CHANNELS AT THE INTERVALS INDICATED BELOW:

GRADE OF CHANNEL	INTERVALS BETWEEN CHECK DAMS
LESS THAN 3%	100 FEET
3% TO 6%	50 FEET
OVER 6%	25 FEET

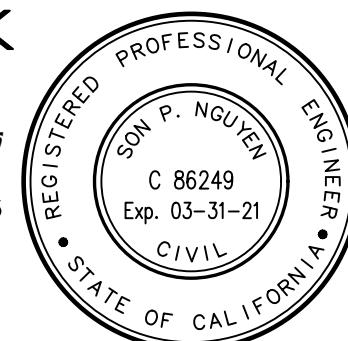
- PROVIDE VELOCITY CHECK DAMS IN ALL PAVED STREET AREAS ACCORDING TO INTERVALS INDICATED BELOW. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF GRAVEL BAGS, TIMBER, OR OTHER EROSION RESISTANT MATERIALS APPROVED BY THE COUNTY ENGINEER, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. VELOCITY CHECK DAMS MAY ALSO SERVE AS SEDIMENT TRAPS.

GRADE OF THE STREET	INTERVAL AS REQUIRED	NUMBER OF BAGS HIGH
LESS THAN 2%	200 FEET MAX.	1
2% TO 4%	100 FEET	1
4% TO 6%	50 FEET	1
6% TO 10%	50 FEET	2
OVER 10%	25 FEET	2

- PROVIDE A GRAVEL BAG SILT BASIN OR TRAP BY EVERY STORM DRAIN INLET TO PREVENT SEDIMENT FROM ENTERING DRAIN SYSTEM.
- GRAVEL BAGS AND FILL MATERIAL SHALL BE STOCKPILED AT INTERVALS, READY FOR USE WHEN REQUIRED.
- ALL EROSION CONTROL DEVICES WITHIN THE DEVELOPMENT SHOULD BE MAINTAINED DURING AND AFTER EVERY RUNOFF PRODUCING STORM, IF POSSIBLE, MAINTENANCE CREWS WOULD BE REQUIRED TO HAVE ACCESS TO ALL AREAS.
- PROVIDE ROCK RIPRAP ON CURVES AND STEEP DROPS IN ALL EROSION PRONE DRAINAGE CHANNELS DOWNSTREAM FROM THE DEVELOPMENT. THIS PROTECTION WOULD REDUCE EROSION CAUSED BY THE INCREASED FLOWS THAT MAY BE ANTICIPATED FROM DENUDED SLOPES, OR FROM IMPERVIOUS SURFACES.
- ANY PROPOSED ALTERNATE CONTROL MEASURES MUST BE APPROVED IN ADVANCE BY ALL RESPONSIBLE AGENCIES- I.E. COUNTY ENGINEER, DEPARTMENT OF ENVIRONMENTAL HEALTH, FLOOD CONTROL, OFFICE OF ENVIRONMENTAL MANAGEMENT, ETC.



**ENGINEER OF WORK**  
**Snipes-Dye associates**  
*civil engineers and land surveyors*  
 8348 CENTER DRIVE, STE. G, LA MESA, CA 91942  
 TELEPHONE (619) 697-9234 FAX (619) 460-2033

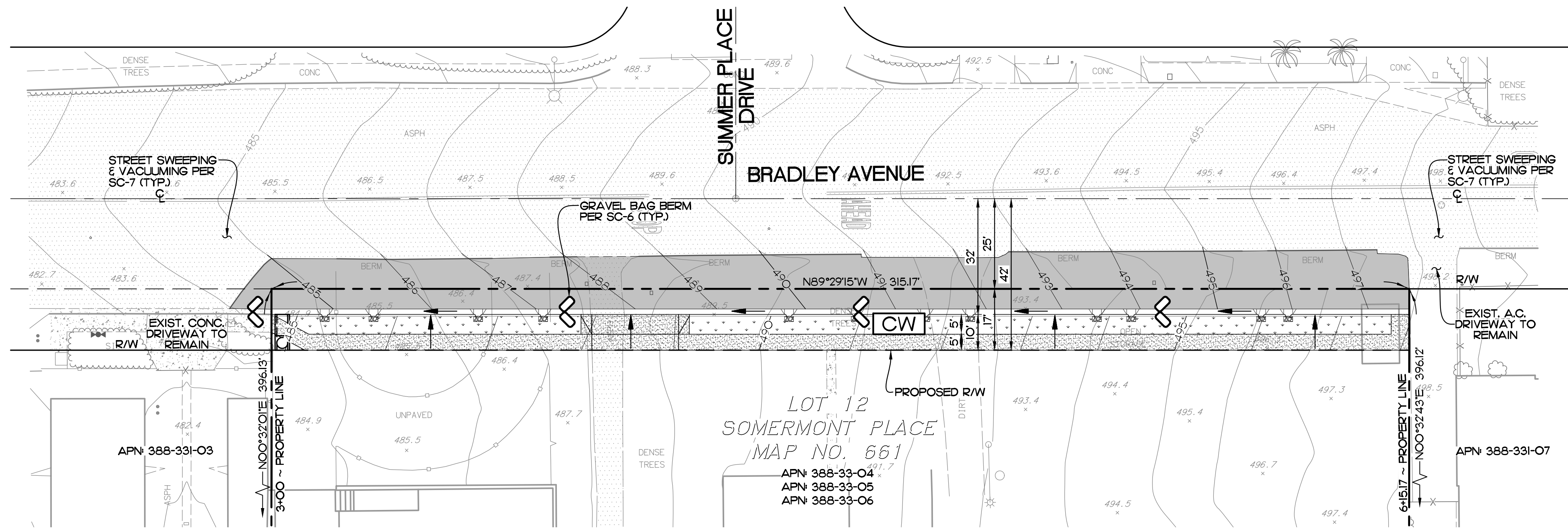


COUNTY APPROVED CHANGES		
No.	Description	Approved by Date

BENCH MARK	
Description	DATE
DESCRIPTION: STANDARD BENCHMARK # 91	
LOCATION: TOP OF CURB, N END CB RETURN AT NW CORNER GRETA STREET AND FIRST STREET	
RECORD FROM: CITY OF EL CAJON	
ELEVATION: 515.161	DATUM: NAVD 88

PRIVATE CONTRACT		
SHEET 4	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	6 SHEETS
EROSION CONTROL NOTES FOR:		
<b>BRADLEY AVENUE</b>		
CALIFORNIA COORDINATE INDEX 238-1785		
APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER	BY: SON P. NGUYEN R.C.E. 86249	
DATE		<b>PDS2019-LDPIIP-60071</b>

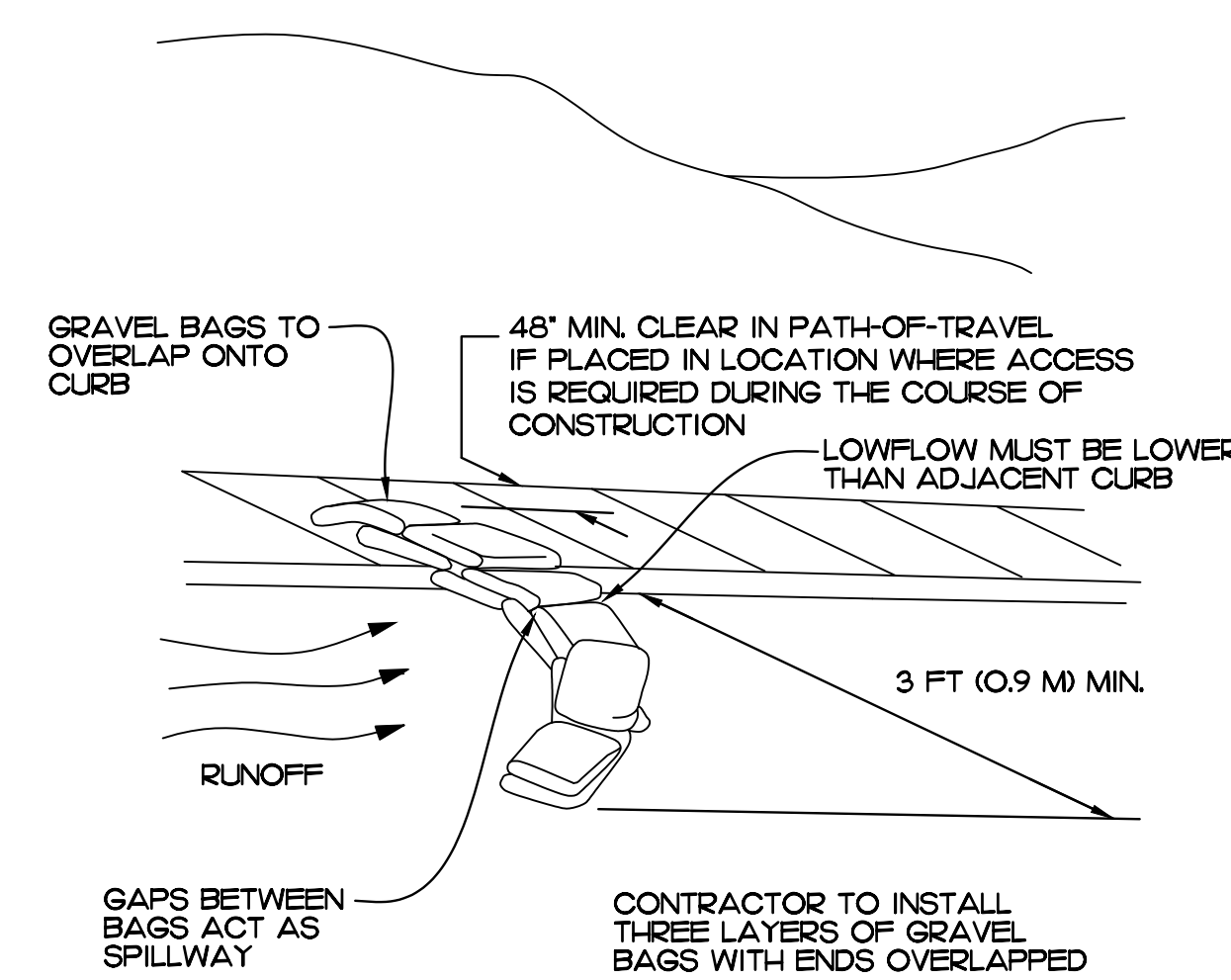




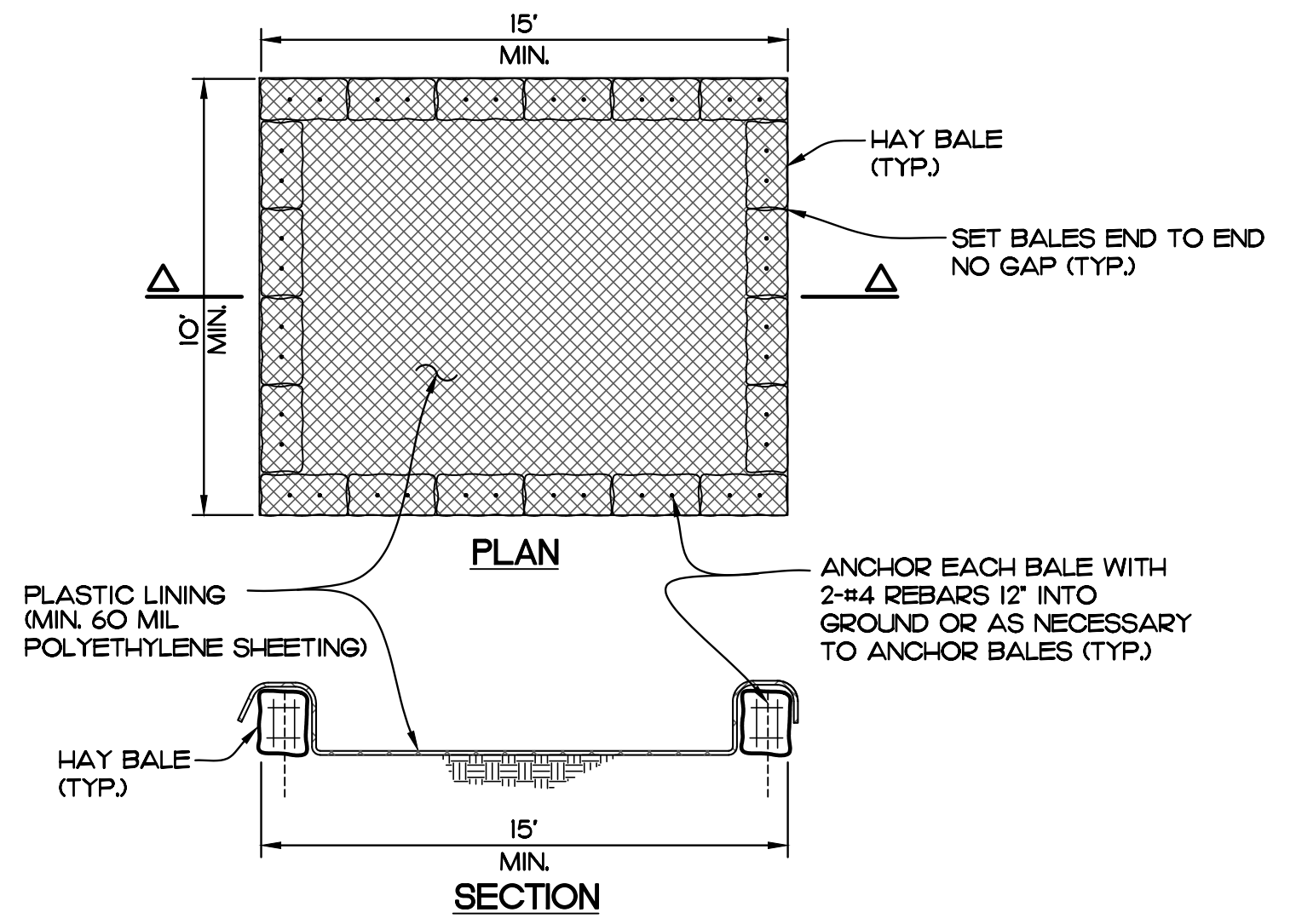
**LEGEND**

THE FOLLOWING BMP'S ARE TO BE UTILIZED :

	SYMBOL
1. SCHEDULING	SS-1
2. GRAVEL BAG BERM	SC-6
3. STREET SWEEPING & VACUUMING	SC-7
4. WIND EROSION CONTROL	WE-1
5. WATER CONSERVATION PRACTICES	NS-1
6. PAVING AND GRINDING OPERATIONS	NS-3
7. ILLICIT CONNECTION/ILLEGAL DISCHARGE DETECTION AND REPORTING	NS-6
8. CONCRETE CURING	NS-12
9. CONCRETE FINISH	NS-14
10. MATERIAL DELIVERY & STORAGE	WM-1
11. MATERIAL USE	WM-2
12. SPILL PREVENTION AND CONTROL	WM-4
13. SOLID WASTE MANAGEMENT	WM-5
14. HAZARDOUS WASTE MANAGEMENT	WM-6
15. CONCRETE WASTE MANAGEMENT	WM-8
16. SANITARY/SEPTIC WASTE MANAGEMENT	WM-9
17. LIQUID WASTE MANAGEMENT	WM-10
18. DIRECTION OF FLOW	

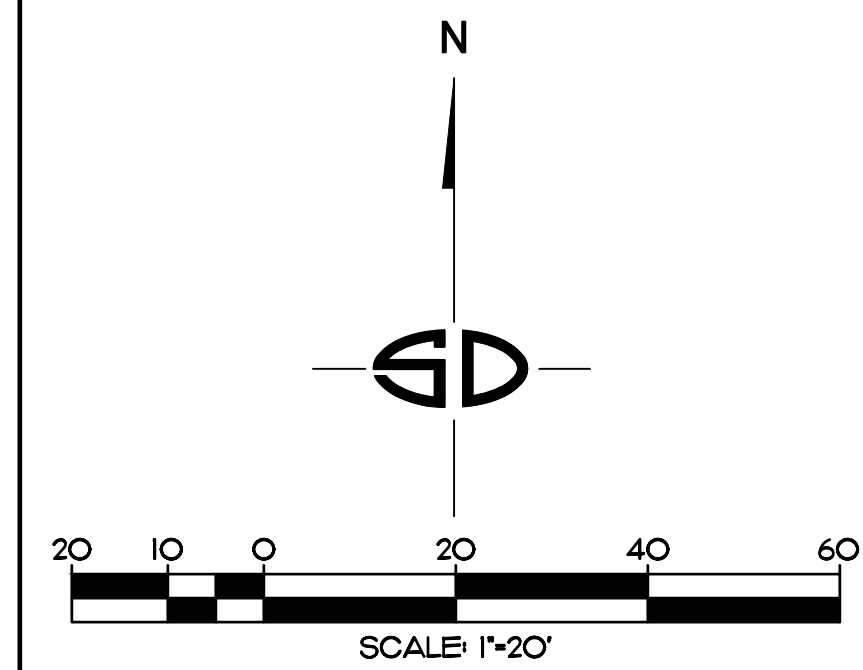


**DETAIL - GRAVEL BAG BERM**  
NO SCALE

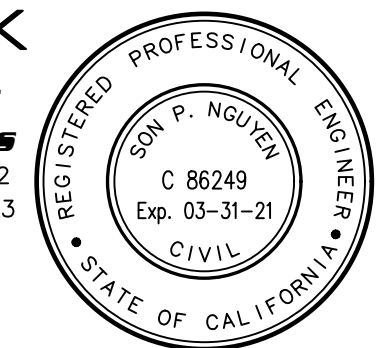


**TEMPORARY CONCRETE WASHOUT (ABOVE GRADE)**  
NO SCALE

TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE MAINTAINED TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM FREEBOARD OF 8". MAINTAINING TEMPORARY CONCRETE WASHOUT FACILITIES SHALL INCLUDE REMOVING AND DISPOSING OF HARDENED CONCRETE AND RETURNING THE FACILITIES TO A FUNCTIONAL CONDITION. HARDENED CONCRETE MATERIALS SHALL BE REMOVED AND PROPERLY DISPOSED OF.



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SON P. NGUYEN R.C.E. 86249  
 EXPIRES 03-31-21

**CAUTION:**  
 LOCATION OF EXISTING UTILITIES ON THIS PLAN ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

COUNTY APPROVED CHANGES		
No.	Description	Approved by Date

**RECORD PLAN**

BY: SON P. NGUYEN DATE: \_\_\_\_\_  
 R.C.E. 86249 EXP. 03-31-21

BENCH MARK	
DESCRIPTION:	STANDARD BENCHMARK # 91
LOCATION:	TOP OF CURB, N END CB RETURN AT NW CORNER GRETA STREET AND FIRST STREET
RECORD FROM:	CITY OF EL CAJON
ELEVATION:	515.161
DATUM:	NAVD 88

**PRIVATE CONTRACT**

SHEET **5** COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS SHEETS **6**

EROSION CONTROL & CONSTRUCTION BMP PLAN FOR:  
**BRADLEY AVENUE**

CALIFORNIA COORDINATE INDEX 238-1785

APPROVED FOR WILLIAM P. MORGAN COUNTY ENGINEER BY: SON P. NGUYEN R.C.E. 86249

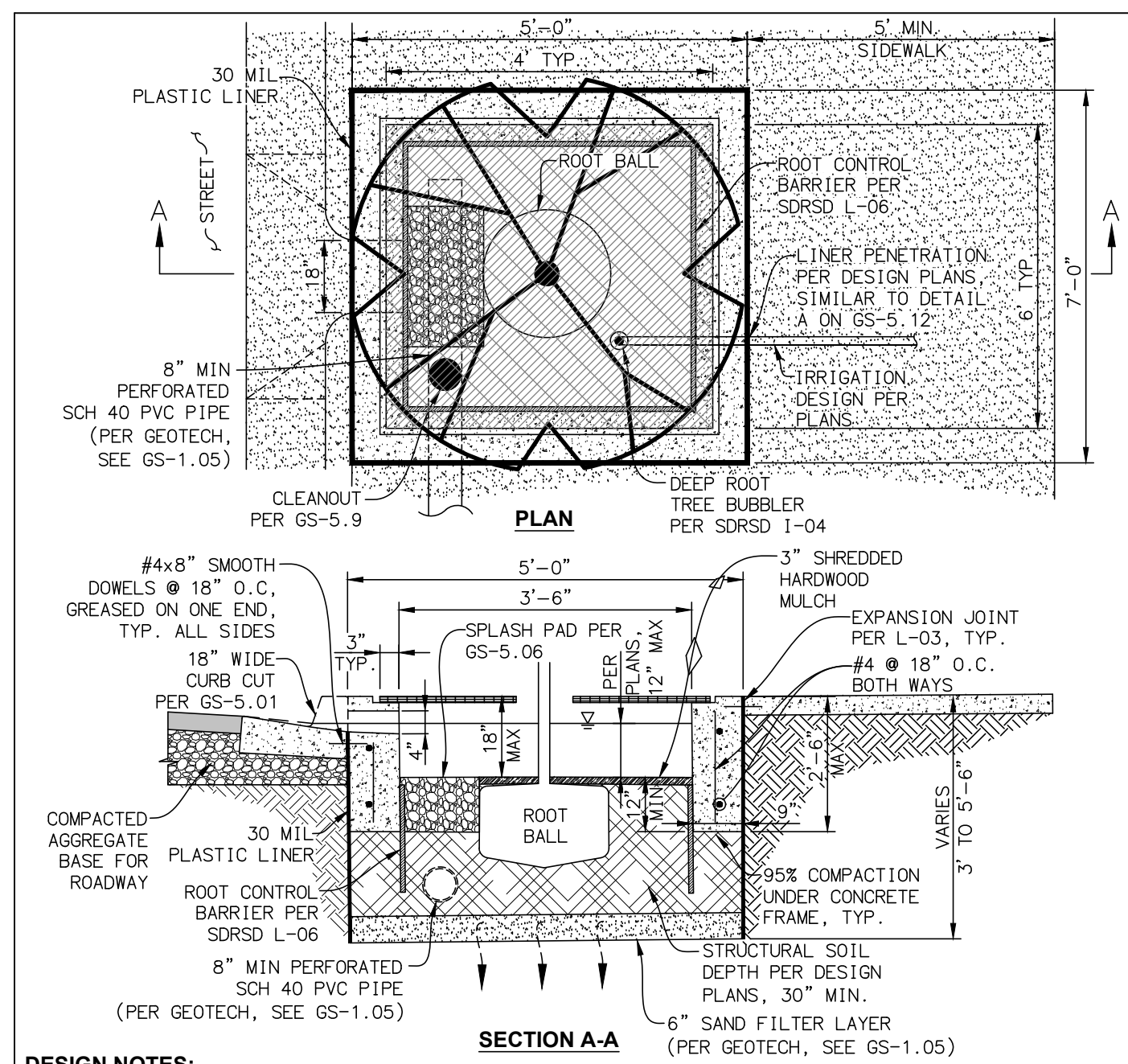
ENGINEER OF WORK  
SON P. NGUYEN R.C.E. 86249

DATE \_\_\_\_\_

**PDS2019-LDPIIP-60071**

ENGINEER'S NAME - SNIPES-DYE ASSOCIATES  
 PHONE NO. (619) 697-9234



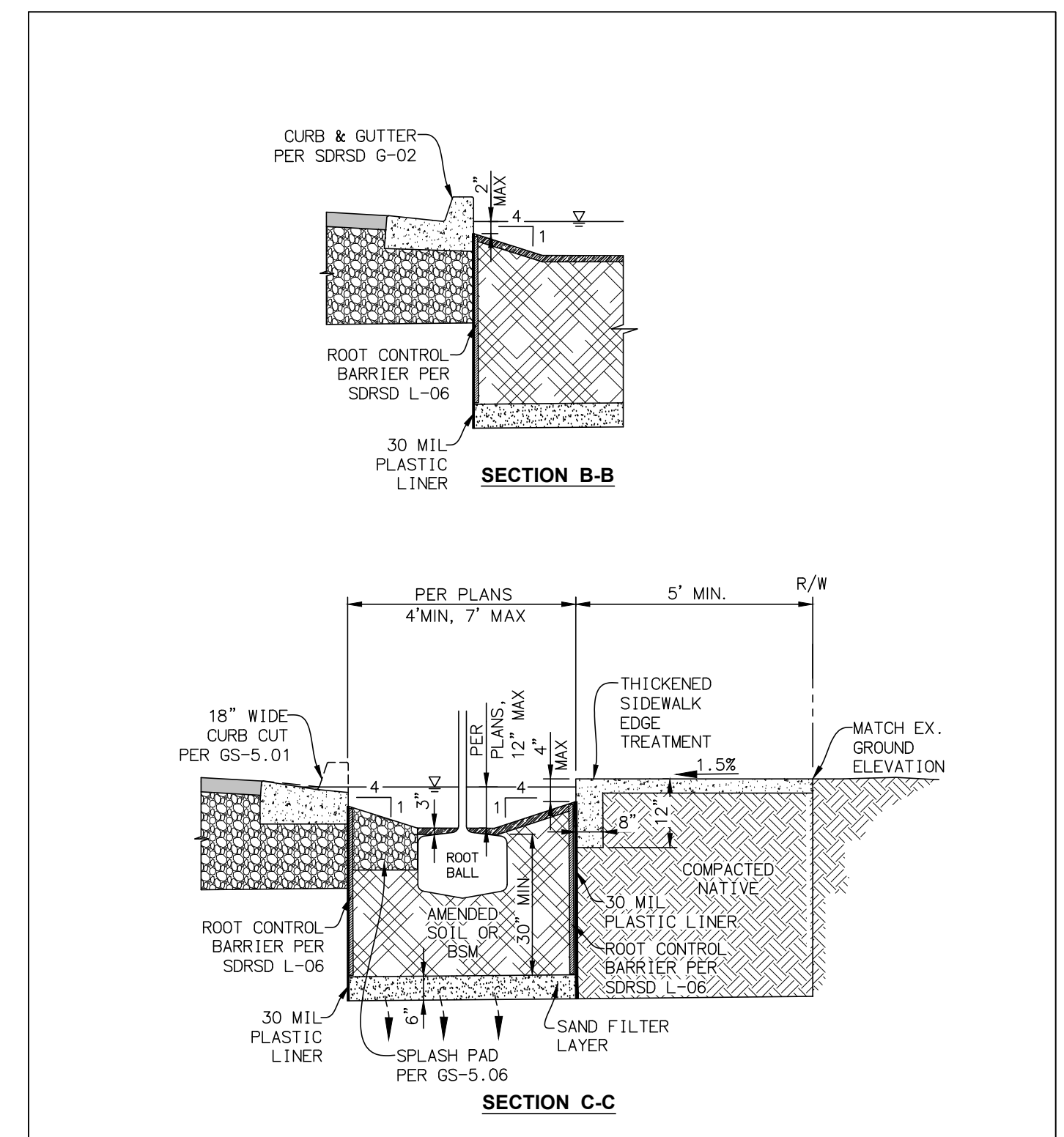


**DESIGN NOTES:**

- STREET IMPROVEMENTS AND DRAINAGE STRUCTURES SHALL BE CONSTRUCTED ACCORDING TO THE LATEST SAN DIEGO REGIONAL STANDARD DRAWINGS AND CALTRANS STANDARD PLANS.
- CONCRETE SHALL BE 520-C-2500 UNLESS OTHERWISE SPECIFIED.
- SEE SDRSD DWG L-01 THROUGH L-06 FOR DETAILS NOT SPECIFIED HEREIN.
- MINIMUM OPEN TREE PLANTING SPACE DIMENSION 4'x6'.
- PROVIDE 30 MIL PLASTIC LINER WHERE CONCRETE WILL BE POURED ON TOP OF STRUCTURAL SOIL.
- SEAL PLASTIC LINER TO ADJACENT IMPROVEMENTS AND EDGE RESTRAINTS PER GS-5.15.
- WHEN SAND FILTER LAYER IS OMITTED, PROVIDE GEOTEXTILE BENEATH THE STRUCTURAL SOIL LAYER PER PROJECT-SPECIFIC GEOTECHNICAL RECOMMENDATIONS.
- PROPOSED SIDEWALK LOCATIONS & INTENDED ADA ROUTES PER PROJECT-SPECIFIC DESIGN PLANS.
- FOR TREE WELL SUBSURFACE DRAINAGE TYPES, SEE DWG GS-1.05.

DRAWN BY: ADR	CHECKED BY: RP	SAN DIEGO COUNTY DESIGN STANDARD	REVISIONS	APPROVED	DATE
RECOMMENDED BY: CHARLES MOHRLOX, P.E.			ORIGINAL		10-01-2019
APPROVED BY COUNTY ENGINEER		<b>TREE WELL GENERAL DESIGN GUIDANCE</b>			
WILLIAM P. MORGAN, P.E. R.C.E. NO. 49452, EXP. 9/30/2020			DRAWING NUMBER		<b>GS-1.00</b>

1 - DETAIL  
NO SCALE

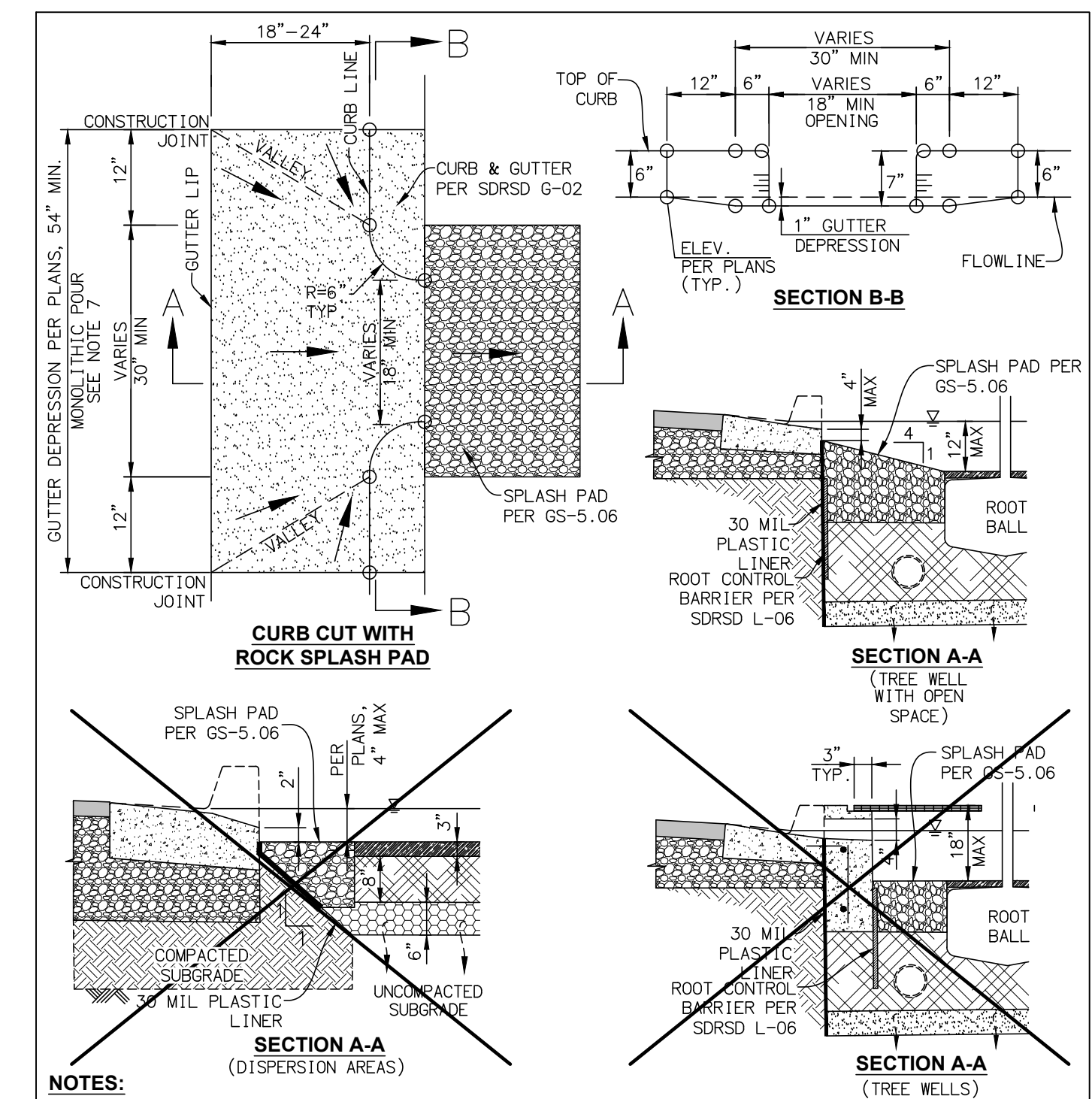


**NOTES:**

- REFER TO GS-1.00 FOR ALL DETAILS NOT SHOWN HERE.
- TREE SIZE & TYPE PER DESIGN PLANS.

DRAWN BY: ADR	CHECKED BY: RP	SAN DIEGO COUNTY DESIGN STANDARD	REVISIONS	APPROVED	DATE
RECOMMENDED BY: CHARLES MOHRLOX, P.E.			ORIGINAL		10-01-2019
APPROVED BY COUNTY ENGINEER		<b>TREE WELL WITH OPEN SPACE</b>			
WILLIAM P. MORGAN, P.E. R.C.E. NO. 49452, EXP. 9/30/2020			DRAWING NUMBER		<b>GS-1.04b</b>

2 - DETAIL  
NO SCALE

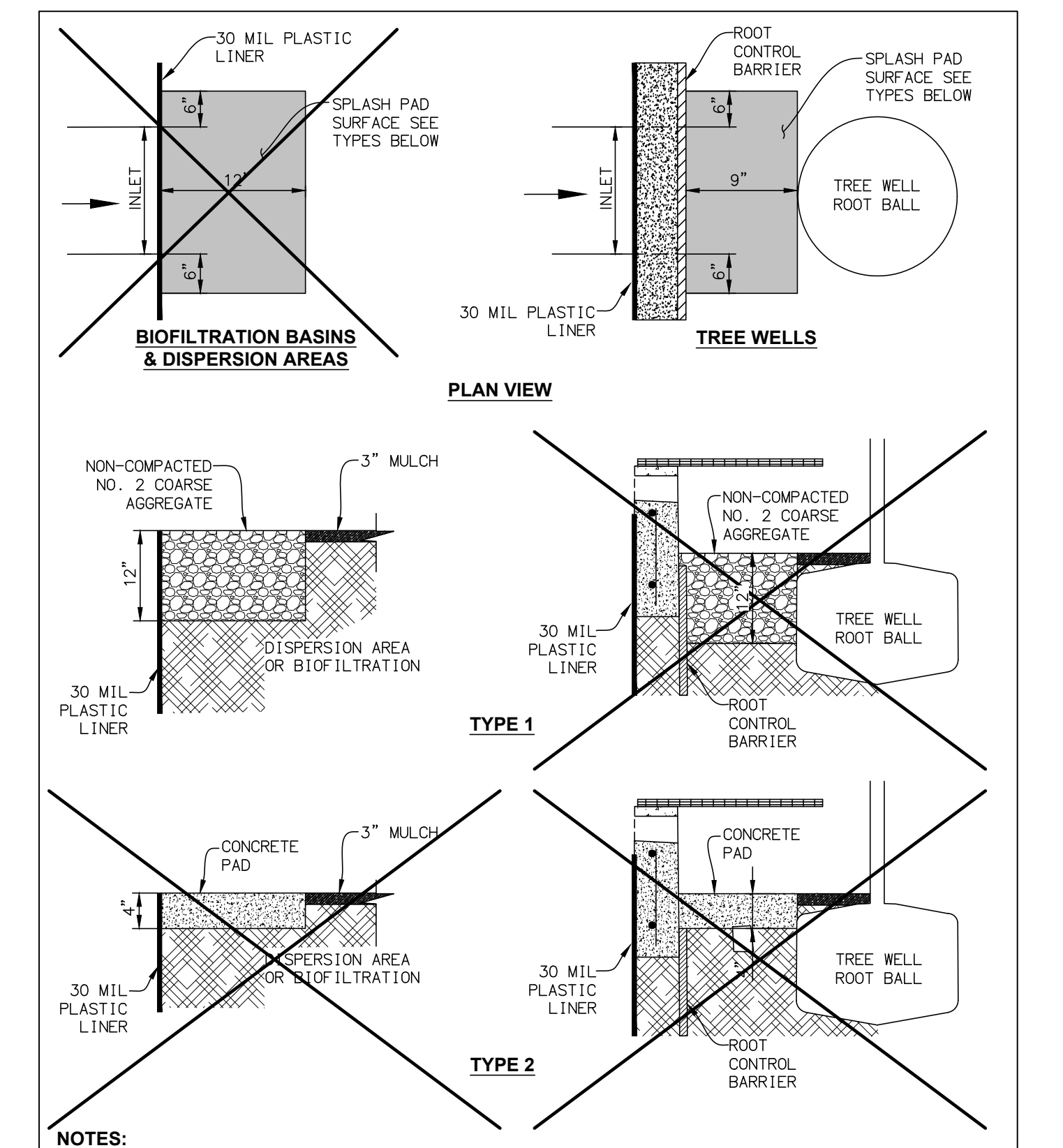


**NOTES:**

- PONDING DEPTH PER DESIGN PLANS, 4" MAX.
- WHERE APPLICABLE, REMOVE EXISTING CURB & GUTTER. CONSTRUCT CURB & GUTTER MONOLITHIC.
- CURB & GUTTER TO BE CONSTRUCTED PER SDRSD G-02.
- ELEVATIONS SHALL BE SHOWN ON PLANS WHERE INDICATED BY "O" SYMBOL.
- SEAL PLASTIC LINER TO ADJACENT IMPROVEMENTS AND EDGE RESTRAINTS PER GS-5.15.
- CONCRETE SHALL BE 520-C-2500.
- GUTTER TRANSITION LENGTH PER DESIGN PLANS; AN ADDITIONAL 2.5-FT CURB TRANSITION LENGTH IS RECOMMENDED FOR EVERY 1" OF ADDITIONAL GUTTER DEPRESSION.

DRAWN BY: ADR	CHECKED BY: RP	SAN DIEGO COUNTY DESIGN STANDARD	REVISIONS	APPROVED	DATE
RECOMMENDED BY: CHARLES MOHRLOX, P.E.			ORIGINAL		10-01-2019
APPROVED BY COUNTY ENGINEER		<b>TREE WELL &amp; DISPERSION AREA CURB CUTS</b>			
WILLIAM P. MORGAN, P.E. R.C.E. NO. 49452, EXP. 9/30/2020			DRAWING NUMBER		<b>GS-5.01</b>

3 - DETAIL  
NO SCALE

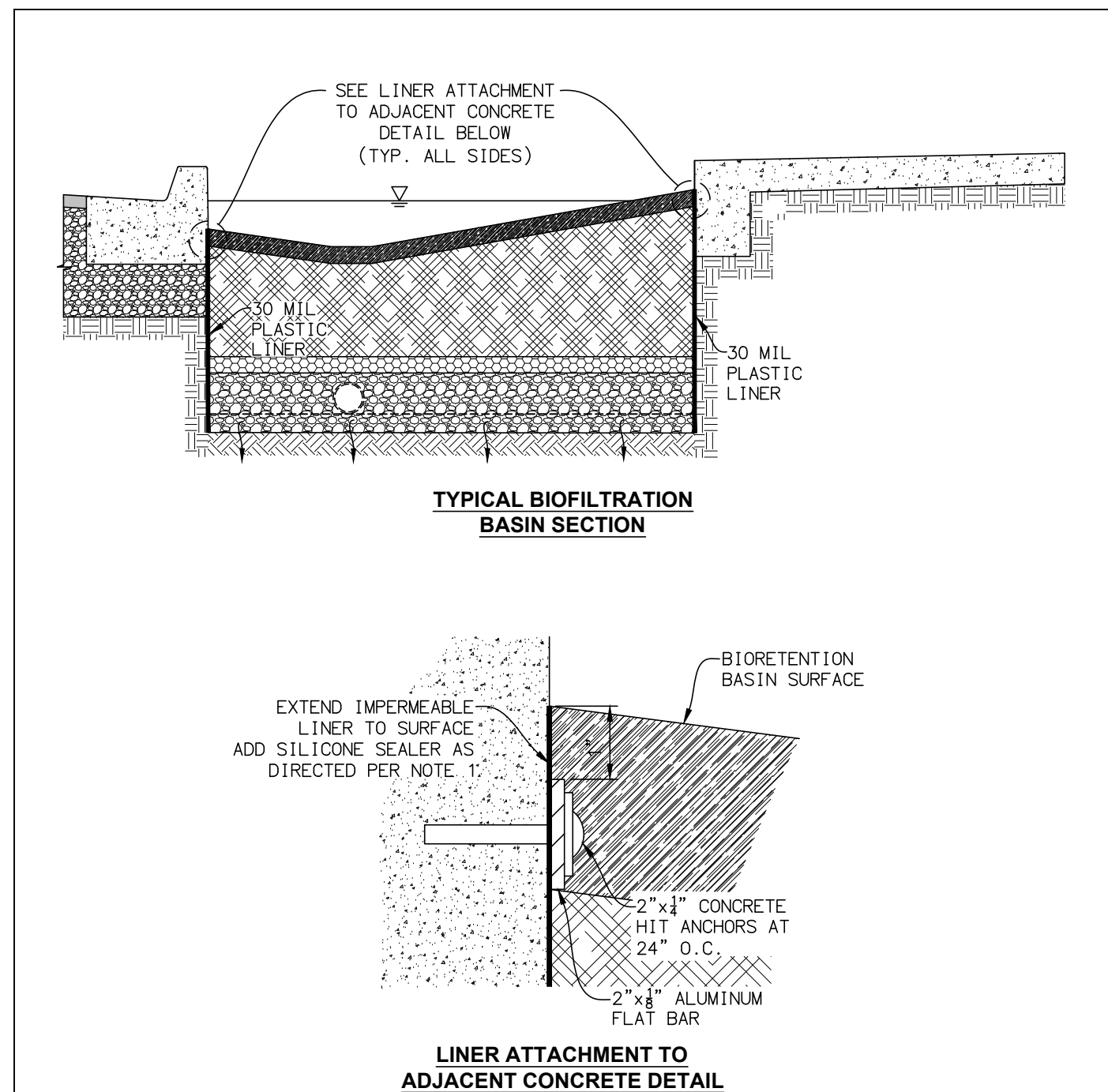


**NOTES:**

- REGARDING TYPE 1 SPLASH PADS, THE STONE SHALL REQUIRE AN EPOXY/GROUT BINDING TO AVOID WASHOUT PER THE PROJECT-SPECIFIC DESIGN PLANS AND SPECIFICATIONS.

DRAWN BY: ADR	CHECKED BY: RP	SAN DIEGO COUNTY DESIGN STANDARD	REVISIONS	APPROVED	DATE
RECOMMENDED BY: CHARLES MOHRLOX, P.E.			ORIGINAL		10-01-2019
APPROVED BY COUNTY ENGINEER		<b>SPLASH PAD</b>			
WILLIAM P. MORGAN, P.E. R.C.E. NO. 49452, EXP. 9/30/2020			DRAWING NUMBER		<b>GS-5.06</b>

4 - DETAIL  
NO SCALE

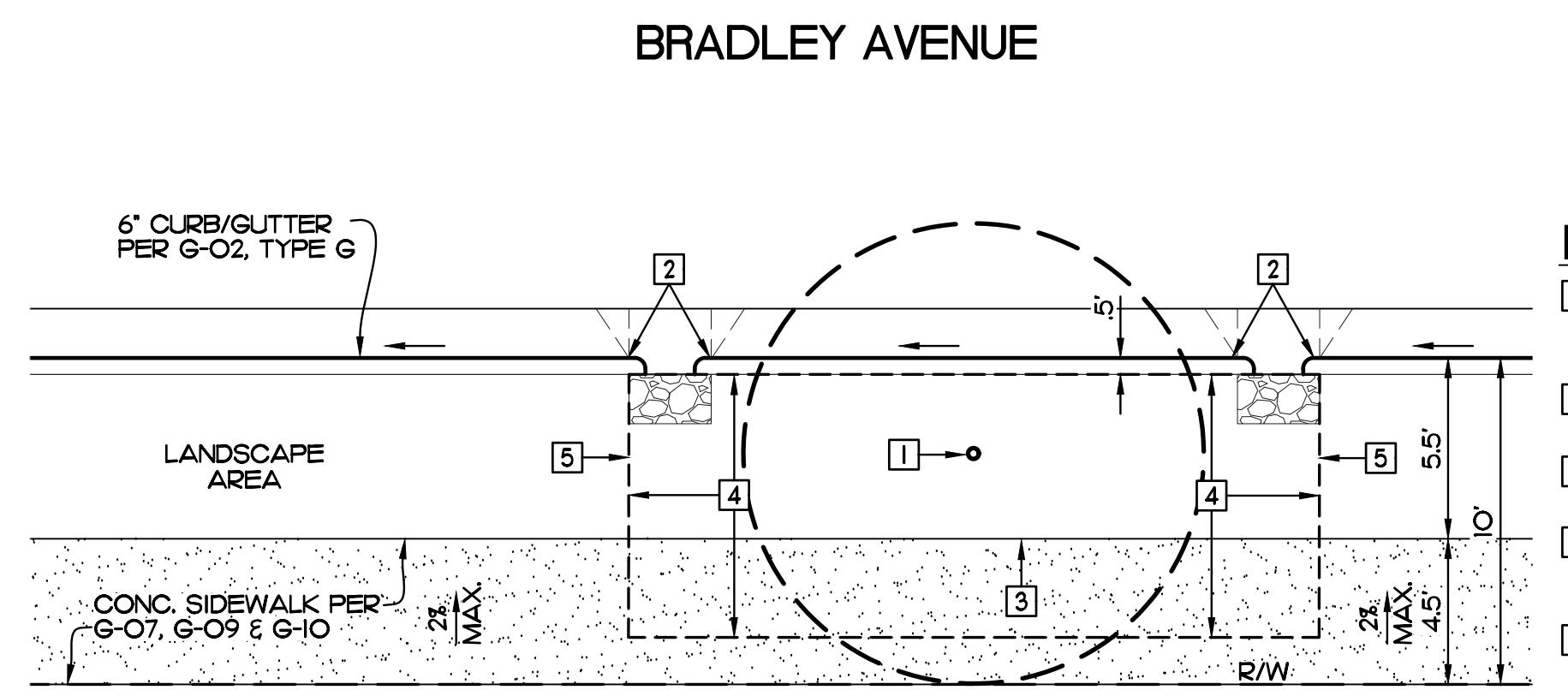


**NOTES:**

- ON CLEAN CONCRETE SURFACE, ADHERE LINER TO CONCRETE WITH SILICONE SEALANT OR EQUIVALENT PER MANUFACTURER RECOMMENDATIONS TO TOP 1/2" OF LINER.
- SECURE LINER TO CONCRETE WITH 2" ALUMINUM OR STAINLESS STEEL FLAT BAR AS DIRECTED PER PLAN.
- AS AN ALTERNATIVE, HIT ANCHORS CAN BE SUBSTITUTED WITH STAINLESS STEEL ANCHORS AT 24" O.C. OR POWDER ACTUATED FASTENERS AT 12" O.C.
- TRIM EXCESS LINER TO BE FLUSH WITH SURFACE ELEVATION.
- CONTRACTOR MEANS AND METHODS SHOULD AVOID/MINIMIZE WRINKLES TO THE LINER.

DRAWN BY: ADR	CHECKED BY: RP	SAN DIEGO COUNTY DESIGN STANDARD	REVISIONS	APPROVED	DATE
RECOMMENDED BY: CHARLES MOHRLOX, P.E.			ORIGINAL		10-01-2019
APPROVED BY COUNTY ENGINEER		<b>IMPERMEABLE LINER FASTENING DETAIL</b>			
WILLIAM P. MORGAN, P.E. R.C.E. NO. 49452, EXP. 9/30/2020			DRAWING NUMBER		<b>GS-5.15</b>

5 - DETAIL  
NO SCALE



**KEY NOTES**

- INSTALL 15 GALLON TREE (SAMBUCUS MEXICANA OR APPROVED EQUAL, MATURE WIDTH = 17) PER L-01.
- 18" CURB CUT W/ SLASH PAD PER DETAIL 4 (GS-2.6B).
- SIDEWALK SIDE EDGE TREATMENT PER DETAIL 3 (GS-2.5C).
- LIMITS OF ROOTING SOIL AREA SUBSURFACE STRUCTURAL SOIL PER DETAIL 2 (OPTION 2, GS-1.5).
- TREE WELL WITH OPEN TREE SPACE PER DETAIL 1 (GS-1.4B).

**PVT. TREE WELL (SD-A) - ENLARGED TYPICAL DETAIL**  
SCALE: 1"=5'

COUNTY APPROVED CHANGES		BENCH MARK	
No.	Description	Approved by	Date
		DESCRIPTION: STANDARD BENCHMARK # 91	
		LOCATION: TOP OF CURB, N END CB RETURN AT NW CORNER GRETA STREET AND FIRST STREET	
		RECORD FROM: CITY OF EL CAJON	
		ELEVATION: 515.161 DATUM: NAVD 88	

**ENGINEER OF WORK**  
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SON P. NGUYEN R.C.E. 86249  
EXPIRES 03-31-21

**RECORD PLAN**

BY: SON P. NGUYEN R.C.E. 86249 EXP. 03-31-21

DATE: \_\_\_\_\_

**PRIVATE CONTRACT**

SHEET 6 COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS 6 SHEETS

BMP ENLARGED PLAN & DETAILS FOR:  
**BRADLEY AVENUE**

CALIFORNIA COORDINATE INDEX 238-1785

APPROVED FOR: WILLIAM P. MORGAN COUNTY ENGINEER

ENGINEER OF WORK: SON P. NGUYEN R.C.E. 86249

DATE: \_\_\_\_\_

**PDS2019-LDPIIP-60071**