

SAN MATEO COUNTY

MIDDLEFIELD ROAD IMPROVEMENT PROJECT

TOTAL PROJECT LENGTH APPROXIMATELY 0.50 MILES

TO BE SUPPLEMENTED BY STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION
STANDARD PLANS DATED MAY 2006 AND ADOPTED BY SAN MATEO COUNTY,
NOVEMBER 14, 2006, BY RESOLUTION NO. 073802

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FIELD BOOKS:

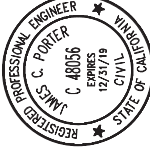
768
768-1

BASIS OF BEARING:

N. 55° W. AS SHOWN ON VOL. 123 MOAPS, PG. 00

BENCH MARK LOCATION AND ELEVATION (NGVD DATUM):

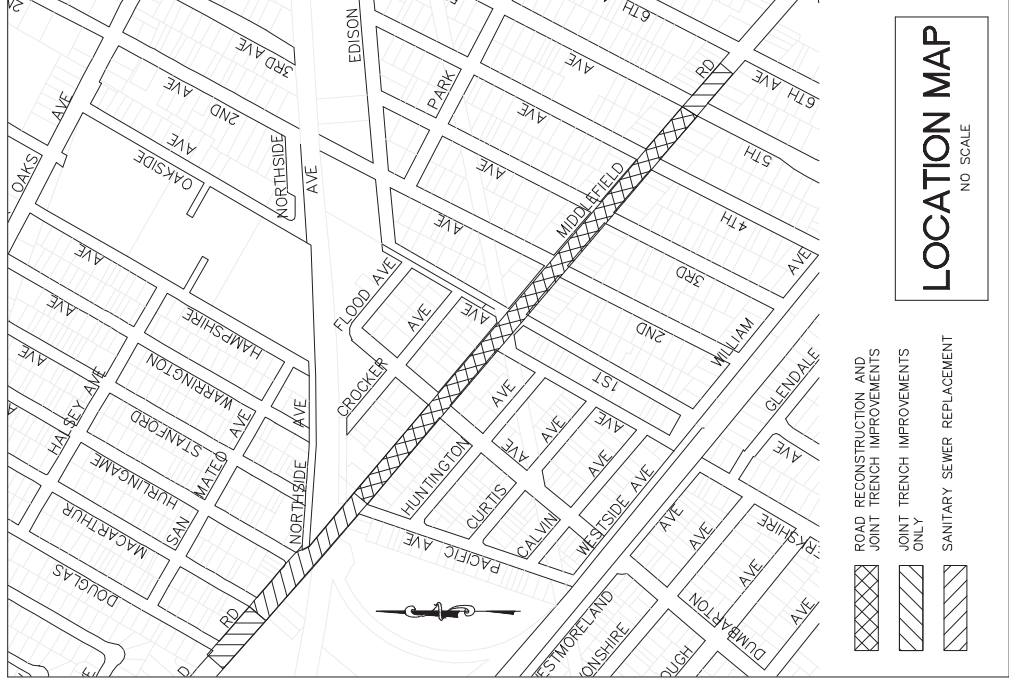
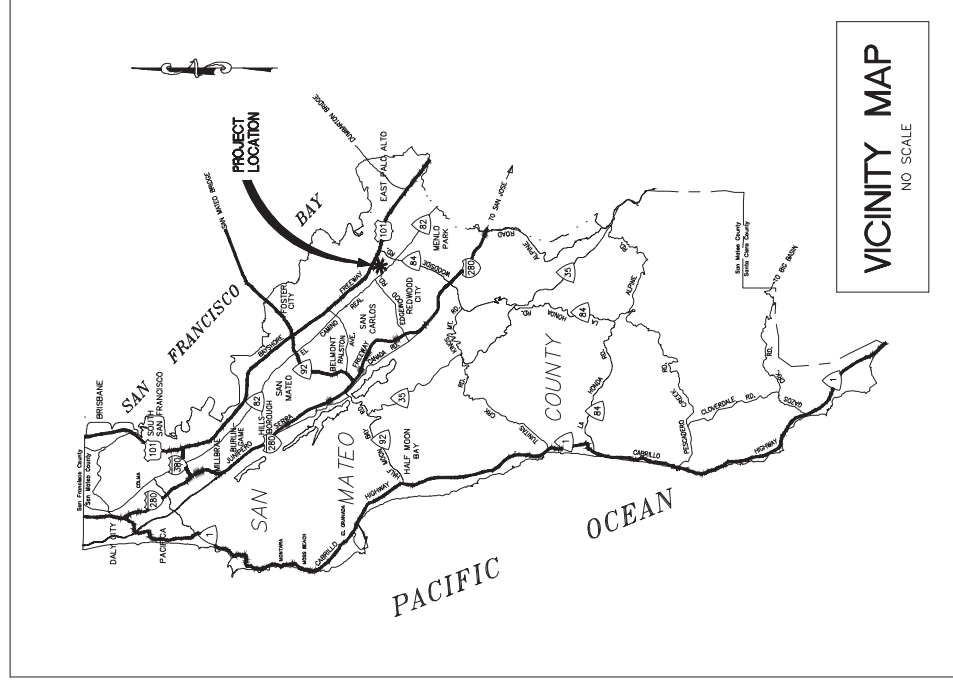
1+00
2+00
3+00



APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

APPROVED DATE:

ISSAC NEWTON, CITY ENGINEER
CITY OF ANY CITY
R.C.E. # 00000 / EXPIRES 00-00-0000

STAMP

APPROVED DATE:

ELMER T. FUDD, ENGINEERING CONSULTANT
JOHN SMITH & CO. INC.
R.C.E. # 00000 / EXPIRES 00-00-0000

STAMP



DESIGNED BY: AB
CHECKED BY: TS
DRAWN BY: AB

COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
TITLE SHEET

REVISION DATE

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY

555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

SCALE: AS SHOWN
DATE: 04-06-2018
FILE NO: 1/----

G-1
SHEET X OF X

GENERAL NOTES:

1. THE CONTRACTOR SHALL CONFINE HIS OPERATIONS AND ACTIVITIES WITHIN THE PROJECT LIMITS CONSISTING OF ROAD RIGHT-OF-WAY, AREAS ON PRIVATE PROPERTY WITHIN THE APPROVED LIMITS OF THE "PERMITS TO ENTER & CONSTRUCT", AND/OR PROJECT CONFORMS AS SHOWN ON THE PLANS AND AS APPROVED BY THE ENGINEER.
2. THE PLANS ARE TO BE SUPPLEMENTED BY THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION'S (CALTRANS) STANDARD PLANS AND SPECIFICATIONS, EDITION 2006 AND ADOPTED BY SAN MATEO COUNTY ON NOVEMBER 14, 2006 BY RESOLUTION NO. 068389. THE PLANS ARE ALSO TO BE SUPPLEMENTED BY THE COUNTY OF SAN MATEO'S STANDARD PLANS FOR PUBLIC IMPROVEMENT DATED JULY 1997.
3. THE LOCATION AND DEPTH OF EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE UTILITIES TO DETERMINE EXACT LOCATIONS AND DEPTHS. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA) AT 1-800-642-2444 TWO (2) WORKING DAYS BEFORE EXCAVATION BEGINS. WHEN CALLING BE PREPARED TO SUPPLY LOCATION, NATURE OF WORK, START DATE, COMPANY NAME, ADDRESS, AND TELEPHONE NUMBER.
4. THE PLANS MAY NOT SHOW ALL EXISTING UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION AND PRESERVATION OF ALL UNDERGROUND UTILITIES. THE CONTRACTOR IS ADVISED THAT EXCAVATION MAY CONFLICT WITH EXISTING GAS, WATER, STORM, SEWER, ELECTRICAL, OR OTHER UTILITY LINES. ANY DAMAGE TO EXISTING OR FACILITIES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
5. THE CITY AND COUNTY OF SAN FRANCISCO ACTING BY AND THROUGH ITS PUBLIC UTILITIES COMMISSION, WATER SUPPLY AND TREATMENT DIVISION ("SFPUC") OWNS AND OPERATES ONE WATER AQUEDUCT THAT CROSS THE PROJECT ALIGNMENT. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICES ALERT (USA) 48 HOURS BEFORE ANY CONSTRUCTION IN THE VICINITY OF THE SFPUC AQUEDUCTS. IN ADDITION, THE CONTRACTOR SHALL NOTIFY THE SFPUC CONSTRUCTION INSPECTOR, MR. ALBERT HAO, AT (650) 871-3015, AT LEAST TEN (10) CALENDAR DAYS PRIOR TO THE START OF ON-SITE CONSTRUCTION IN THE VICINITY OF THE SFPUC ROW. IN THE EVENT OF EMERGENCY INVOLVING SFPUC FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY SFPUC BY CALLING SFPUC MILLBRAE DISPATCH AT 650-872-5900.
6. NO MECHANICAL EXCAVATION IS ALLOWED WITHIN 24 INCHES OF SFPUC PIPELINES. DIGGING WITH 24 INCHES OF EXCAVATION MUST BE DONE WITH HAND TOOL. NO VIBRATORY COMPACTION EQUIPMENT SHALL BE USED WITHOUT PRIOR WRITTEN APPROVAL OF THE SFPUC.
7. CONTRACTOR SHALL OBTAIN CONSENT FROM THE SFPUC TO POTHOLE SFPUC PIPELINE TO DETERMINE THE PIPE DEPTH PRIOR TO ANY EXCAVATION. THE POTHOLING SHALL BE CARRIED OUT BY SOIL VACUUM EXTRACTION METHOD.
8. MAXIMUM EXTERNAL LOADING OVER SFPUC PIPELINE IS AASHTO H-10 LOADING WITH A MINIMUM OF 3 FEET SOIL COVER (OR H-20 LOADING WITH A MINIMUM OF 4 FEET SOIL COVER). IF LOADING CONDITION EXCEEDS ABOVE, ENGINEERING CALCULATIONS AS SHOWN IN AWWA, M9 MUST BE SUBMITTED TO THE SFPUC TO SHOW THAT PROPOSED CONDITION WOULD IMPOSE A LOAD OF LESS THAN 500 PSF ONTO THE PIPELINE.
9. PROJECT SURVEY AND STAKING SERVICES WILL BE PROVIDED BY THE ENGINEER. REFER TO SECTION 5-107 OF THE STANDARD SPECIFICATIONS.
10. THE CONTRACTOR IS ADVISED THAT A PORTION OF THE PROJECT AREA LIES WITHIN A COMMERCIAL ZONE. EXCAVATION AND DEMOLITION OF THE EXISTING ASPHALT CONCRETE AND PORTLAND CEMENT CONCRETE SHALL CONFORM TO AN ESTABLISHED PLAN SUBMITTED TO AND APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL NOT PROCEED WITH ANY EXCAVATION OR DEMOLITION THAT IS NOT PART OF AN ENGINEER APPROVED DEMOLITION PLAN.
11. CONSTRUCTION OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO CAUSE AS LITTLE INCONVENIENCE AS POSSIBLE TO ADJUTING PROPERTY OWNERS. CONVENIENT ACCESS TO CROSS STREETS, DRIVEWAYS, HOUSES AND BUILDINGS ALONG THE LINE OF WORK SHALL BE MAINTAINED.
12. THE CONTRACTOR'S WORK HOURS SHALL BE BETWEEN 7:00 AM TO 6:00 PM MONDAY THROUGH FRIDAY AND 9:00 AM TO 5:00 PM ON SATURDAYS. CONSTRUCTION IS NOT ALLOWED ON SUNDAYS, THANKSGIVING, OR CHRISTMAS. THE CONTRACTOR WILL BE PERMITTED TO WORK ON FRIDAY EVENING, LEAST ONE TRUCK LANE OPEN IN EACH DIRECTION DURING WORKING HOURS, AND TO HAVE TWO TRAVEL LANES OPEN IN EACH DIRECTION DURING NON-WORKING HOURS.
13. THE CONTRACTOR WILL ONLY BE ALLOWED TO REMOVE AND CONSTRUCT CURB, GUTTER, SIDEWALK AND UNDERGROUND UTILITY IMPROVEMENTS AT TWO OR MORE NON-ADJACENT OR ALTERNATING BLOCKS AT THE SAME TIME AND WORK SHALL BE LIMITED TO ONLY ONE (1) SIDE OF THE STREET. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A WORK SEQUENCING PLAN TO THE ENGINEER FOR REVIEW AND WORK SHALL NOT COMMENCE PRIOR TO RECEIVING WRITTEN APPROVAL OF THE CONTRACTOR'S PLAN OF SEQUENCING WORK BY THE ENGINEER. IMPROVEMENTS WILL BE PERMITTED TO BE COMPLETED BY THE CONTRACTOR WITHIN TEN (10) WORKING DAYS. THE CONTRACTOR MAY SUBMIT AN ALTERNATE CONSTRUCTION PLAN FOR REVIEW, SUBJECT TO THE ENGINEER'S APPROVAL AND WRITTEN AUTHORIZATION.
14. CONTRACTOR SHALL IMMEDIATELY PROVIDE ACCESS TO ALL ENTRANCES AFTER THE REMOVAL OF ADJACENT CONCRETE IMPROVEMENTS. THE CONTRACTOR SHALL MAINTAIN ACCESS FACILITIES TO ALL AFFECTED ENTRANCES AT HIS EXPENSE UNTIL THE ENGINEER HAS APPROVED THEIR REMOVAL. THE METHOD OR TYPE OF ACCESS FACILITY FOR EACH ENTRANCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE METHOD OR TYPE OF ACCESS FACILITY SHALL BE APPROVED BY THE ENGINEER. THE METHOD OR TYPE OF ACCESS FACILITY SHALL BE APPROVED BY THE ENGINEER.
15. CONTRACTOR SHALL PROVIDE ACCESS TO ALL ENTRANCES DURING THE FORMING, PLACING, AND CURING OF CONCRETE. THE CONTRACTOR SHALL MAINTAIN ACCESS FACILITIES TO ALL AFFECTED ENTRANCES AT HIS EXPENSE UNTIL THE ENGINEER HAS APPROVED THEIR REMOVAL. THE METHOD OR TYPE OF ACCESS FACILITY FOR EACH ENTRANCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. THE CONTRACTOR SHALL NOT PROCEED WITH CONSTRUCTION OF ANY ENTRANCE, CURB, GUTTER, SIDEWALK, OR OTHER TYPE OF ACCESS FACILITY, HAS BEEN APPROVED BY THE ENGINEER. CONTRACTOR SHALL LIMIT THE EXTENT OF CONCRETE REMOVAL TO THAT WHICH ALLOWS PLACEMENT OF APPROVED TEMPORARY ACCESS FACILITY FOR ALL AREAS WHICH CONCRETE HAS BEEN REMOVED IN THE SAME WORK DAY.

GENERAL CONSTRUCTION NOTES:

1. ONLY EXCAVATIONS AND CONFORM LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. VEGETATION AND IMPROVEMENTS (INCLUDING FENCES) THAT ARE DESIGNATED TO BE REMOVED SHALL BE REMOVED ONLY WHEN DIRECTED IN WRITING BY THE ENGINEER AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
3. ANY DAMAGE TO FACILITIES (SUCH AS DRIVEWAYS, PAVED SHOULDER, ETC.) ADJACENT TO THE LIMITS OF CONFORM RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
4. ALL CONCRETE SHALL BE CLASS B, EXCEPT AS NOTED, CONTAINING NOT LESS THAN 470 POUNDS OF PORTLAND CEMENT PER CUBIC YARD.
5. AGGREGATE BASE SHALL BE COMPACTED TO NOT LESS THAN 95% RELATIVE COMPACTION FIRST TESTS SHALL BE PERFORMED AT A COUNTY APPROVED LAB AT THE COUNTY'S EXPENSE. ANY RETESTS DUE TO INSUFFICIENT COMPACTION SHALL BE AT THE CONTRACTOR'S EXPENSE.
6. SIDEWALKS SHALL BE SCORED AT TWO FEET SIX INCH (2'-6") INTERVALS. EACH WAY OR TO MATCH EXISTING SCORE MARKS. MONOLITHIC CURB, GUTTER, AND SIDEWALK SHALL HAVE A CONTINUOUS SCORE MARK SIX INCHES (6") FROM THE CURB FACE.
7. ALL NEW PORTLAND CEMENT CONCRETE (PCC) IMPROVEMENTS SHALL BE DOWELED TO EXISTING ADJACENT PCC IMPROVEMENTS USING TWELVE INCH (12") LONG NO. 3 REBAR AT THREE FEET (3') ON CENTER, DRILL FOR TIGHT FIT OR EPOXY IN PLACE.
8. LOCATIONS FOR STREET TREES, BENCHES, AND TRASH CANS ARE SHOWN ON SHEET XX OF THE PROJECT PLANS. EXACT LOCATIONS MAY BE MODIFIED DUE TO FIELD CONDITIONS. FINAL LOCATIONS SHALL BE APPROVED IN THE FIELD BY THE ENGINEER.
9. PRE-CONSTRUCTION: CONTACT UNDERGROUND SERVICE ALERT (USA); NOTIFY: SFPUC ROW MANAGER ONE WEEK PRIOR (EMILY READ, ROW MANAGER, AT EREAD@SFWATER.ORG OR (650) 652-3204), SFPUC-WSD LAND ENGINEERING CONSTRUCTION INSPECTOR (ALBERT HAO, CONSTRUCTION INSPECTOR, AT AHAO@SFWATER.ORG OR (650) 871-3015) AND SFPUC MILLBRAE DISPATCH AT (650) 872-5900 WHEN COMMENCING CONSTRUCTION ON SFPUC PROPERTY AND/OR PIPELINES.
10. POST-CONSTRUCTION: REMOVE ALL CONSTRUCTION DEBRIS FROM SFPUC ROW/PARCELS AND ARRANGE FOR POST-CONSTRUCTION/RESTORATION SITE INSPECTION [COUNTY TO CONTACT EMILY READ, ROW MANAGER, AT EREAD@SFWATER.ORG OR (650) 652-3204]

LEGEND:

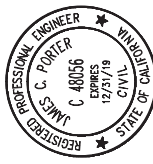
(1) REMOVE & RESET SIGN	(100.00) EXISTING ELEVATION	⊠	ELECTRIC METER BOX
□ INSTALL NEW SIGN	100.00 PROPOSED ELEVATION	⊠	MAILBOX
① STRIPING/MARKING DETAIL	○ WATER METER	☼	LIGHT POLE
△ DRIVEWAY NUMBER	⊠	☼	DRAINAGE INLET
DWY 18 DRIVEWAY LOCATION AND WIDTH	⊠	⊠	SIDEWALK TELEPHONE
3258 HOUSE/PROPERTY ADDRESS	⊠	⊠	TELECOMMUNICATION MANHOLE
○ EX. GAS MAIN	○	⊠	RAILROAD SIGNAL
— SS — EX. SANITARY SEWER LINE	⊠	⊠	PEDESTRIAN SIGNAL
— W — EX. WATER MAIN	⊠	⊠	PULL BOX TELEPHONE
— SD — EX. STORM DRAIN LINE	⊠	⊠	PULL BOX
— E — E — E — EX. ELECTRICAL	⊠	⊠	CABLE TV PULL BOX
- FO — EX. FIBER OPTIC	⊠	⊠	ELECTRICAL PULL BOX
— OH — OH — OH — EX. OVERHEAD UTILITY	⊠	⊠	FENCE
— GPR — EX. GROUND PENETRATING RADAR	⊠	⊠	TRAFFIC LIGHT
— ○ — EX. RAILROAD TRACKS	⊠	⊠	WATER WELL
— — — — — PROPERTY LINES	⊠	⊠	PEDESTRIAN LIGHT
— — — — — ROW LIMIT LINES	⊠	⊠	STREET LIGHT WITH 30" BASE
— SD — PR. STORM DRAIN LINE	⊠	⊠	
— — — — — PR. JOINT TRENCH	⊠	⊠	

ABBREVIATIONS:

AB	AGGREGATE BASE	(M)	MATCH EXISTING	ROW	RIGHT OF WAY
AC	ASPHALTIC CONCRETE	MFS	METROPOLITAN FIBER SYSTEMS (EX FIBER OPTIC CABLE)	RR	RAILROAD
BW	BACK OF WALK	MH	MANHOLE	RT	RIGHT
BEG	BEGIN	N	NORTH	SD	STORM DRAIN
CB	CATCH BASIN	NE	NORTH EAST	SDDI	STORM DRAIN DRAINAGE INLET
CL	CENTERLINE	OFF	OFFSET	SDMH	STORM DRAIN MAN HOLE
CONC	CONCRETE	OH	OVERHEAD UTILITY	S	SOUTH
DWY	DRIVEWAY	PAV	PAVEMENT	SE	SOUTHEAST
E	EAST	PC	POINT OF CURVATURE	SS	SANITARY SEWER
EX	EXISTING	PCC	PORTLAND CEMENT CONCRETE POINT OF COMPOUND CURVATURE	SSMH	SANITARY SEWER MANHOLE
FC	FACE OF CURB	PKNG	PARKING	STA	STATION
FH	FIRE HYDRANT	PP	POWER POLE	STRP	STRIP
FL	FLOWLINE	PR	PROPOSED	SW	SOUTHWEST
GB	GRADE BREAK	PRC	POINT OF REVERSE CURVATURE	TC	TOP OF CURB
GPR	GROUND PENETRATING RADAR	PT	POINT OF TANGENCY	TYP	TYPICAL
GV	GAS VALVE	PVC	POLYVINYL CHLORIDE	VCP	VITRIFIED CLAY PIPE
INV	INVERT	RCP	REINFORCED CONCRETE PIPE	WM	WATER METER
JT	JOINT TRENCH	RRM	UPPER RIM OF PIPE OR STRUCTURE	WV	WATER VALVE
LT	LEFT				

APPROVED:

DATE:



JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

	DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
	CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
	DRAWN BY: AB	GENERAL NOTES AND ABBREVIATIONS	FILE NO: 1/----
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR
		SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES			
			G-2
			SHEET X OF X

DEMOLITION NOTES:

- GRID COORDINATES REFER TO THE NORTH AMERICAN DATUM 1983, CALIFORNIA STATE COORDINATE SYSTEM ZONE III, ESTABLISHED BY GPS PROCEDURES.
- CONTRACTOR TO SUPPLY ALL LABOR, EQUIPMENT, MATERIALS, INCLUDING ANY AND ALL APPURTENANCES, NECESSARY TO COMPLETE PROPOSED IMPROVEMENTS.
- CONTRACTOR SHALL OBTAIN WRITTEN CLEARANCE/EXCAVATION PERMIT(S) FROM THE COUNTY OF SAN MATEO 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION.
- ALL CONSTRUCTION SHALL CONFORM TO THE COUNTY OF SAN MATEO STANDARD PLANS (WHERE APPLICABLE).
- THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT SHALL BE MADE TO LOCATE AND DEPTH MARK ALL UTILITIES PRIOR TO EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UNDERGROUND UTILITIES NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS.
- THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES PRIOR TO THE CONSTRUCTION OF THE NEW IMPROVEMENTS CONNECTING TO OR IN THE VICINITY OF SAME.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RELOCATION (WHERE NECESSARY) OF ALL EXISTING MONUMENTS, OTHER SURVEY MARKERS, STREET SIGNS, AND ANY OTHER IMPORTANT OBJECTS ON THE JOB SITE.
- CONTRACTOR TO LAYOUT ALL UTILITIES AND ASSOCIATED STRUCTURES PRIOR TO COMMENCING EXCAVATION AND NOTIFY ENGINEER OF ANY CONFLICTS.
- CONTRACTOR TO LOCATE ALL PROPOSED STRUCTURES (MANHOLES AND CATCH BASINS) TO ACCOMMODATE THE EXISTING CONDITIONS AND CONFORM TO EXISTING PAVEMENT AND CURB ELEVATIONS AND LOCATIONS. TOP ELEVATION OF NEW CATCH BASINS TO BE SET SUFFICIENTLY BELOW ADJACENT EXISTING GRADE TO DRAIN AND MANHOLES TO BE SET 0.05' BELOW ADJACENT EXISTING GRADE.
- CONTRACTOR SHALL POTHOLE/VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND REPORT ANY CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED JOINT TRENCH AND OTHER IMPROVEMENTS TO COUNTY ENGINEER IN WRITING.
- THE CITY AND COUNTY OF SAN FRANCISCO ACTING BY AND THROUGH ITS PUBLIC UTILITIES COMMISSION, WATER SUPPLY AND TREATMENT DIVISION ("SFPUC") OWNS AND OPERATES ONE WATER AQUEDUCT THAT CROSSES THE PROJECT ALIGNMENT. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICES ALERT (USA) 48 HOURS BEFORE ANY CONSTRUCTION IN THE VICINITY OF THE SFPUC AQUEDUCTS. IN ADDITION, THE CONTRACTOR SHALL NOTIFY THE SFPUC CONSTRUCTION INSPECTOR, MR. ALBERT HAO, AT (650) 871-3015, AT LEAST TEN (10) CALENDAR DAYS PRIOR TO THE START OF ON-SITE CONSTRUCTION IN THE VICINITY OF THE SFPUC ROW. IN THE EVENT OF EMERGENCY INVOLVING SFPUC FACILITIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY SFPUC BY CALLING SFPUC MILLBRAE DISPATCH AT 650-872-5900.
- NO MECHANICAL EXCAVATION IS ALLOWED WITHIN 24 INCHES OF SFPUC PIPELINES. DIGGING WITH 24 INCHES OF PIPELINE MUST BE DONE WITH HAND TOOL. NO VIBRATORY COMPACTION EQUIPMENT SHALL BE USED WITHOUT PRIOR WRITTEN APPROVAL OF THE SFPUC.
- CONTRACTOR SHALL OBTAIN CONSENT FROM THE SFPUC TO POTHOLE SPECIFIC LOCATIONS DETERMINED BY THE PROJECT PRIOR TO EXCAVATION. THE POTHOLING SHALL BE CARRIED OUT BY SOIL VACUUM EXTRACTION METHOD.
- MAXIMUM EXTERNAL LOADING OVER SFPUC PIPELINE IS AASHTO H-10 LOADING WITH A MINIMUM OF 3 FEET SOIL COVER (OR H-20 LOADING WITH A MINIMUM OF 4 FEET SOIL COVER). IF LOADING CONDITION EXCEEDS ABOVE, ENGINEERING CALCULATIONS AS SHOWN IN AWWA M9 MUST BE SUBMITTED TO THE SFPUC TO SHOW THAT PROPOSED CONDITION WOULD IMPOSE A LOAD OF LESS THAN 500 PSF ONTO THE PIPELINE.
- CONTRACTOR RESPONSIBLE FOR SEQUENCING OF WORK TO AVOID CONFLICTS.
- CONTRACTOR RESPONSIBLE TO ENSURE EROSION CONTROL AND TRAFFIC CONTROL BARRICADES AND SIGNAGE ARE ERECTED AND IN-PLACE AT THE END OF EACH WORK DAY.
- CONTRACTOR TO BE SOLELY RESPONSIBLE TO PROTECT EXISTING BUILDINGS, VEGETATION, TREES, AND SURFACE FEATURES FROM DAMAGE. ANY DAMAGE OCCURRED TO BE REPAIRED BY THE CONTRACTOR. CONTRACTOR TO SUBMIT WRITTEN REQUEST TO UNDERGROUND SERVICE ALERT (U.S.A.) 21 DAYS PRIOR TO INTENDED CONSTRUCTION START DATE.
- CONTRACTOR TO COORDINATE WITH PG&E 5 DAYS PRIOR TO ANY EXCAVATION IN THE AREA.
- CONTRACTOR TO PROVIDE ANY AND ALL TRAFFIC CONTROL DEVICES/PERSONNEL PER THE COUNTY OF SAN MATEO REQUIREMENTS (INCLUDING LIGHTING IN EVENT OF NIGHT WORK).
- SAWCUT LINES SHALL BE SMOOTH AND FREE OF FRAGMENTED OR BROKEN ASPHALT.
- SAWCUT AND DEMOLISH SIDEWALKS AND/OR CURBS AT CONTROL JOINTS.
- CONTRACTOR TO COMPLY WITH APPLICABLE BAY AREA AIR QUALITY MANAGEMENT DISTRICT (BAAQMD) CONTROL MEASURES TO CONTROL GENERATION AND MITIGATION OF FUGITIVE DUST EMISSIONS.
- CONTRACTOR TO COMPLY WITH US ENVIRONMENTAL PROTECTION AGENCY (USEPA) AND CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY (CALEPA) RECOMMENDATIONS TO REDUCE EQUIPMENT EXHAUST EMISSIONS.

- CONTRACTOR TO ACCOMMODATE ALL PROJECT-RELATED STAGING ON-SITE.
- THE CONTRACTOR SHALL NOT DAMAGE ANY PRIVATE PROPERTY. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- DIMENSIONS GIVEN ARE APPROXIMATE AND MAY REQUIRE ADJUSTMENT TO ACCOMMODATE FIELD CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING WORK NECESSARY TO COMPLETE SHOWN IMPROVEMENTS.
- EXCEPT FOR ITEMS INDICATED TO REMAIN, CONTRACTOR SHALL REMOVE FROM PROJECT SITE AND DISPOSE (IN AUTHORIZED DISPOSAL SITES) ALL DEMOLITION MATERIALS WITHIN THE LIMIT OF DEMOLITION AS SHOWN. REMOVAL ITEMS WILL INCLUDE (BUT NOT BE LIMITED TO) PAVING, CURBS, SOIL, PIPING, ETC. THE REMOVED ITEMS SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS AND ORDINANCES OF THE COUNTY OF SAN MATEO.
- UNDERGROUND UTILITIES SHOWN ARE FROM THE BEST AVAILABLE RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING & PROTECTING ALL SURFACE AND SUBSURFACE UTILITIES (INCLUDING ANY OTHER POSSIBLE UNFOUNDED UTILITIES THAT MAY NOT BE SHOWN ON THE DRAWINGS) WITHIN THE PROJECT AREA DURING CONSTRUCTION. NO ADDITIONAL PAYMENT SHALL BE MADE IF ANY VARIATIONS (I.E. LOCATION, SIZE, DEPTH, MATERIAL) ARE FOUND.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FUNCTION OF EXISTING UTILITIES AT ALL TIMES DURING ALL PHASES OF CONSTRUCTION.
- EXISTING SANITARY SEWER SERVICE SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION. EXISTING SANITARY SEWER SERVICE LAYER LINES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS SOLE EXPENSE.
- ALL UTILITY STRUCTURES SUBJECT TO POSSIBLE VEHICLE LOADING SHALL BE RATED TO WITHSTAND AASHTO H20 LOADING.
- SEE MISCELLANEOUS DETAIL SHEETS FOR ADDITIONAL INFORMATION OF BULBOUT CONSTRUCTION.
- CONSTRUCTION OF STREETScape ELEMENTS TO BE PERFORMED IN SEGMENTS TO LIMIT THE DISRUPTION TO ADJACENT DRIVEWAYS. DRIVEWAYS ACCESS MUST BE RESTORED AT THE END OF EACH WORK DAY (5PM). MAXIMUM DURATION OF DRIVEWAY CLOSURE DURING CONCRETE WORK TO BE TWO DAYS.

BIORETENTION DESCRIPTION:

- GREEN INFRASTRUCTURE STORMWATER TREATMENT DEVICES IN THESE PLANS ARE REFERRED TO IN GENERAL AS "BEST MANAGEMENT PRACTICES," OR "BMPs."
- A BIORETENTION UNIT IS A LANDSCAPED STORMWATER COLLECTION DEVICE THAT, IN PLANTING BED.

BIORETENTION CONSTRUCTION:

- #### AVOIDING SOIL COMPACTION AND SEDIMENTATION
- FOR BIORETENTION UNITS TO FUNCTION PROPERLY, THE PLANTING BED MUST NOT BE COMPACTED DURING CONSTRUCTION, AND SEDIMENT MUST BE PREVENTED FROM ENTERING THE BMP DURING AND AFTER CONSTRUCTION.
 - CONSTRUCTION ACTIVITIES SHALL NOT COMPACT SOILS WITHIN THE FOOTPRINT OF ALL EXCAVATION AND GRADING EQUIPMENT.
 - SEDIMENT AND EROSION CONTROLS MUST BE IN-PLACE UPHILL AND UPSTREAM OF THE BMPs AT ALL TIMES DURING CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING THE BMPs DURING CONSTRUCTION OR AFTER PLANNING CONSTRUCTION OF THE PLANTING BEDS. THE BMPs SHALL BE COMPLETED BEFORE CONSTRUCTING THE BMP PLANTING BEDS.
 - WATTLES, SILT FENCE, SILT DIKE, OR EQUIVALENT, SHALL BE INSTALLED UPHILL OF BMPs WHERE SOIL IS TO BE DISTURBED AND MAY CAUSE RUNOFF TO AND SEDIMENTATION OF BMPs.
 - INLETS TO THE BMPs SHALL BE BLOCKED OFF WITH SAND BAGS DURING CONSTRUCTION TO KEEP STORMWATER AND SEDIMENT FROM ENTERING THE BIORETENTION CELL. SAND BAGS SHALL BE LEFT IN PLACE AFTER CONSTRUCTION AT THE DIRECTION OF THE CITY ENGINEER TO PROTECT THE BIORETENTION UNIT DURING THE INITIAL PLANT ESTABLISHMENT PERIOD.

BIORETENTION EXCAVATION

- BIORETENTION UNITS SHALL BE EXCAVATED AND CONSTRUCTED WITH AN EXCAVATOR OPERATING OUTSIDE THE UNIT FOOTPRINT. NO EQUIPMENT MAY ENTER THE BMP TO EXCAVATE THEM PRIOR TO APPROVAL FROM THE CITY ENGINEER. IN THE RARE EVENT THAT EQUIPMENT IS REQUIRED TO ENTER THE BIORETENTION UNIT, THE CITY ENGINEER EQUIPMENT SHALL CONSIST OF LOW-IMPACT, LIGHTWEIGHT EQUIPMENT, AND THE BED OF THE BIORETENTION UNIT SHALL BE RESTORED BY RIPPING TO A MINIMUM DEPTH OF 12 INCHES.
- #### CURBS, INLETS, AND SIDEWALK REPAIR
- ALL CONCRETE AND PAVEMENT WORK INCLUDING, BUT NOT LIMITED TO, CURB CUTS, INLET CONSTRUCTION, CURB REPLACEMENT, PAVEMENT OR SIDEWALK REPAIR SHALL BE DONE BEFORE BIORETENTION UNIT GRADING AND PLANTING BED PREPARATION.
 - ALL ROCK, GRAVEL, CONCRETE WASTE, LUMBER, OR OTHER CONSTRUCTION DEBRIS MUST BE REMOVED FROM THE BMP PRIOR TO BIORETENTION BED GRADING AND PREPARATION.

- IF BIORETENTION SOILS ARE DISTURBED OR COMPACTED BY CONCRETE WORK, THE BED OF THE BIORETENTION UNIT SHALL BE RESTORED BY RIPPING TO A MINIMUM DEPTH OF 12 INCHES.

GRADING AND SOIL PREPARATION

PREPARE THE BIORETENTION UNIT IN THE FOLLOWING MANNER:

- TYPICAL BIORETENTION UNIT STORMWATER COLLECTION DEPTH WILL BE 12 INCHES. THE ENGINEERED SOIL USED FOR THE PLANTING BED WILL BE APPROXIMATELY 18 INCHES DEEP AND THE BIORETENTION GRAVEL STORAGE LAYER WILL BE 12 INCHES OF ASTM #7 AGGREGATE WITH A 3" CHOKING LAYER OF ASTM #9 AGGREGATE.
- CONSTRUCT BIORETENTION BASIN AND INSTALL CONCRETE INLET AND OUTLET STRUCTURES.
- TEMPORARY BACKFILL CONCRETE STRUCTURE OVER EXCAVATION AFTER STRIPPING FORMS TO PROTECT INFILTRATION SURFACE AT PLANTER SUBGRADE.
- EXCAVATE THE BIORETENTION UNIT TO BOTTOM OF THE BIORETENTION BASIN DEPTH.
- ROTOILL 6 INCHES OF NATIVE SUBGRADE BEFORE THE PLACEMENT OF AGGREGATE.
- INSTALL 3 INCHES CHOKING COURSE LAYER OF ASTM #9 OVER 12 INCHES OF ASTM #7 AGGREGATE.
- PLACE 18 INCHES OF MOISTENED ENGINEERED BIORETENTION SOIL MIX OVER CLEAN COMPACTED GRAVEL IN LIGHTLY COMPACTED 6 INCH LAYERS.
- CREATE SIDE SLOPES WITH ENGINEERED BIORETENTION SOIL MIX. LIGHTLY TAMP SOIL IN PLACE WITH FOOT TRAFFIC AND RAKE TO GRADE.
- AFTER GRADING AND LIGHT COMPACTION, ADD SOIL AS REQUIRED TO REACH DESIGN LINES AND GRADES.
- PERFORM DOUBLE-RING INFILTROMETER TEST TO CONFIRM INFILTRATION RATE FOR BIORETENTION UNIT PER SPECIFICATIONS.

BIORETENTION UNIT COMPACTION AND SEDIMENT

- PLANTING SOILS MUST NOT BE COMPACTED DURING CONSTRUCTION OF BIORETENTION UNIT. IF SOILS ARE COMPACTED AT ANY TIME AFTER BIORETENTION UNIT GRADING, THEY MUST BE RESTORED BY RIPPING TO A MINIMUM DEPTH OF 12 INCHES.
- PREVENT SEDIMENT FROM ENTERING THE BIORETENTION BASIN.

PLANT AND MULCH INSTALLATION

- PLANT AND MULCH INSTALLATION DETAILS ARE SHOWN ON THE LANDSCAPE SHEETS.
- ### SANITARY SEWER DEMOLITION:
- THE CONTRACTOR SHALL CONTACT THE COUNTY OF SAN MATEO AT 650-363-4765 OR 650-363-4100 TWO (2) WORKING DAYS IN ADVANCE OF BEGINNING ANY SANITARY SEWER WORK. THE CONTRACTOR SHALL THEREAFTER KEEP THE INSPECTOR FOR THE DISTRICT INFORMED OF THE SCHEDULE FOR SANITARY SEWER WORK.
 - ALL SANITARY SEWER WORK CONSTRUCTED WITHOUT INSPECTION BY THE DISTRICT SHALL BE REMOVED AND RECONSTRUCTED WITH INSPECTIONS.
 - THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FORTY-EIGHT (48) HOURS IN ADVANCE OF BEGINNING ANY WORK.
 - THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES BEFORE BEGINNING ANY EXCAVATING.
 - THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED BY THE COUNTY OR CITY BEFORE BEGINNING ANY SANITARY SEWER WORK.
 - SANITARY SEWER SERVICE SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL USE WHATEVER MEANS ARE NECESSARY (E.G. PUMPS, ETC.) TO MAINTAIN THIS SERVICE DURING CONSTRUCTION.
 - THE CONTRACTOR MAY NOT USE ANY MACHINE OR DEVICE THAT BREAKS PAVEMENT BY BLOWING STRUCK BY A FALLING OR DRIVEN HAMMER OR WEIGHT. CONTRACTOR SHALL BE LIMITED TO LIMITED TO, PAVEMENT CONCRETE SAW CUTTING OR VIBRATORY PAVEMENT BREAKER.
 - SUCH PROHIBITION, HOWEVER, SHALL NOT BE CONSTRUCTED AS BARRING THE USE OF HAND TOOLS OR MANUALLY OPERATED AIR TOOLS SUCH AS JACKHAMMERS.

JACK AND BORE SPECIFICATIONS

- THE CONTRACTOR SHALL LOCATE THE JACKING PITS A MINIMUM OF THIRTY (30) FEET FROM THE CENTERLINE OF RAILROAD TRACKS.
- THE CONTRACTOR SHALL SHORE IN ACCORDANCE TO CAL-OSHA REQUIREMENTS.
- REFLECTORS SHALL BE AFFIXED TO THE SHORING ON ALL SIDES FACING TRAFFIC.
- THE CONTRACTOR SHALL ENSURE PITS DO NOT AFFECT ANY STATE FACILITIES, OR CREATE A HAZARD TO THE TRAVELING PUBLIC. DAMAGED STATE FACILITIES SHALL BE REPLACED IN-KIND OR REPAIRED TO THEIR ORIGINAL STATE BY THE CONTRACTOR.

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SCALE: AS SHOWN
DATE: 04-06-2018
FILE NO: 1/----

GENERAL NOTES AND ABBREVIATIONS

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CHECKED BY: TS
DRAWN BY: AB
DATE: _____
REVISION: _____

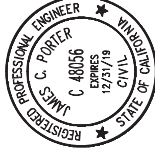
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SAN MATEO COUNTY

555 COUNTY CENTER, 5th FLOOR
REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES
0 1 2 3 4
G-3
SHEET X OF X

APPROVED:

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- THE CONTRACTOR SHALL HAVE CRUSHED-ROCK AND SUMP AREAS TO CLEAR GROUNDWATER AND WATER USED TO CLEAN THE CASINOS IN ALL PITS. PITS SHALL BE LINED WITH FILTER FABRIC WHEN GROUNDWATER IS FOUND AND PUMPING IS REQUIRED.
- TEMPORARY TYPE-K RAILING SHALL BE PLACED AT A 20:1 TAPER OR AS OTHERWISE DIRECTED BY THE COUNTY'S REPRESENTATIVE TO MAINTAIN THE INTEGRITY OF THE ADJACENT TRAVEL LANE.

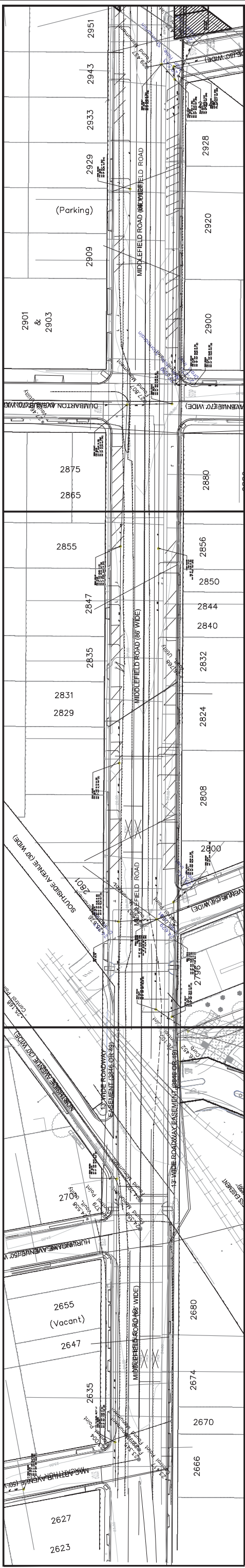
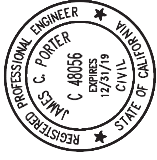
JOINT TRENCH DEMOLITION:

- FOR JOINT TRENCH NOTES REFER TO JT-2.

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DATE:

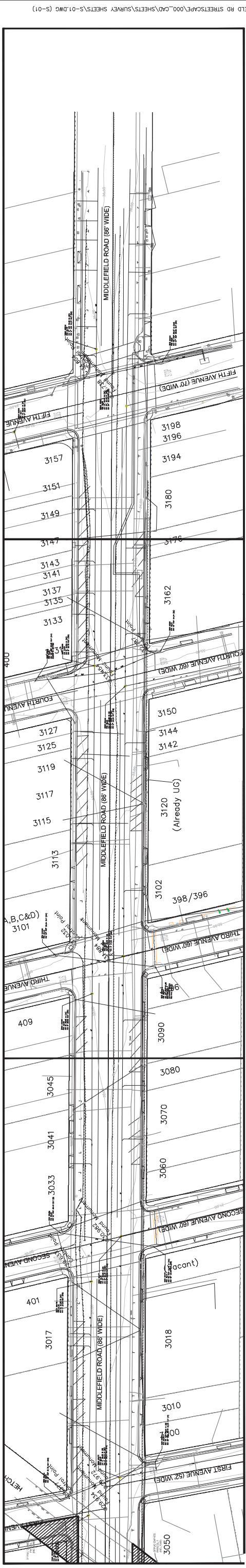
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SHEET S-4

SHEET S-3

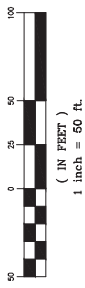
SHEET S-2



SHEET S-7

SHEET S-6

SHEET S-5



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REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	

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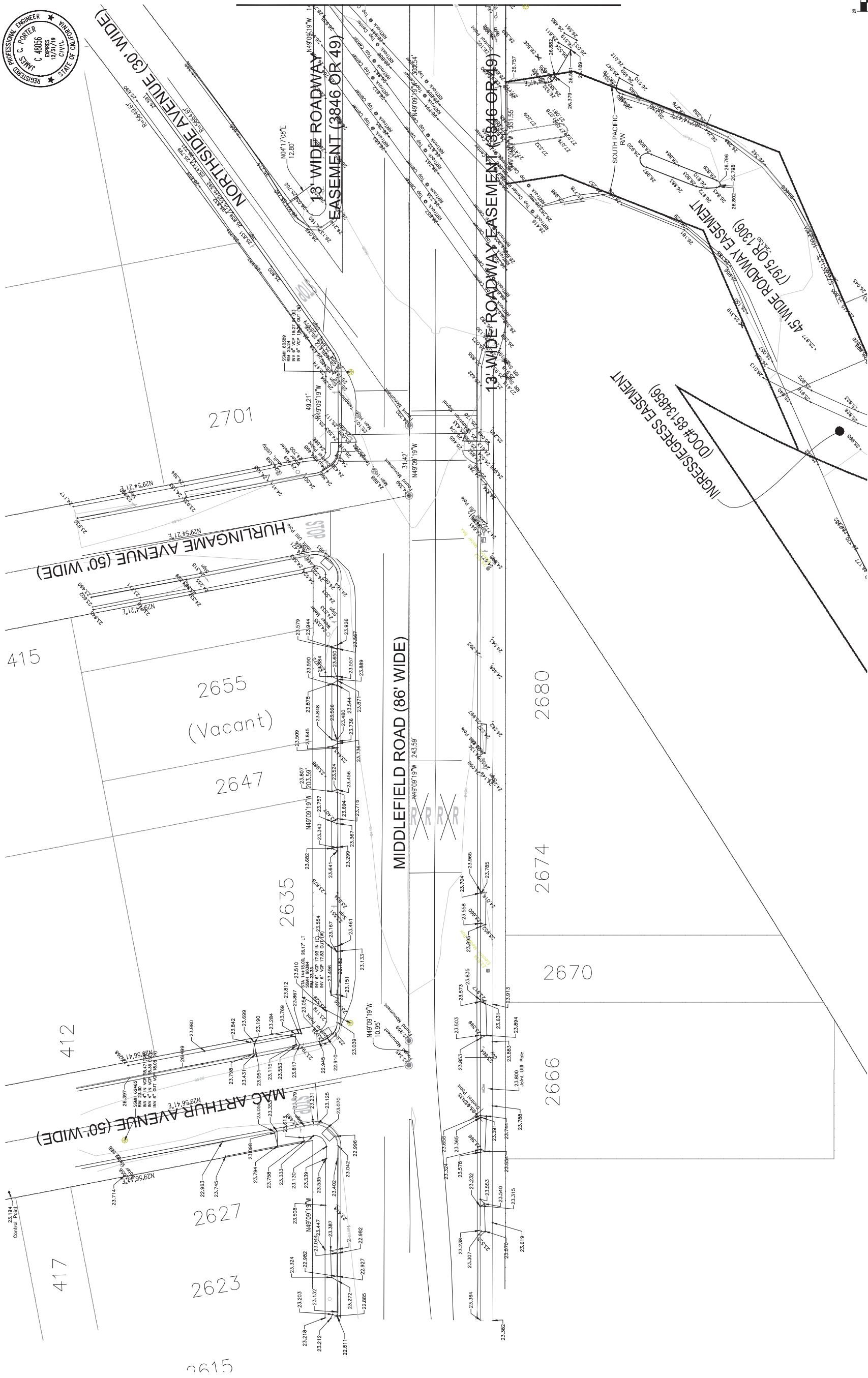
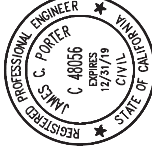
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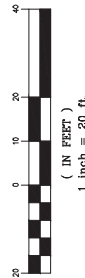
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SEE SHEET S-3



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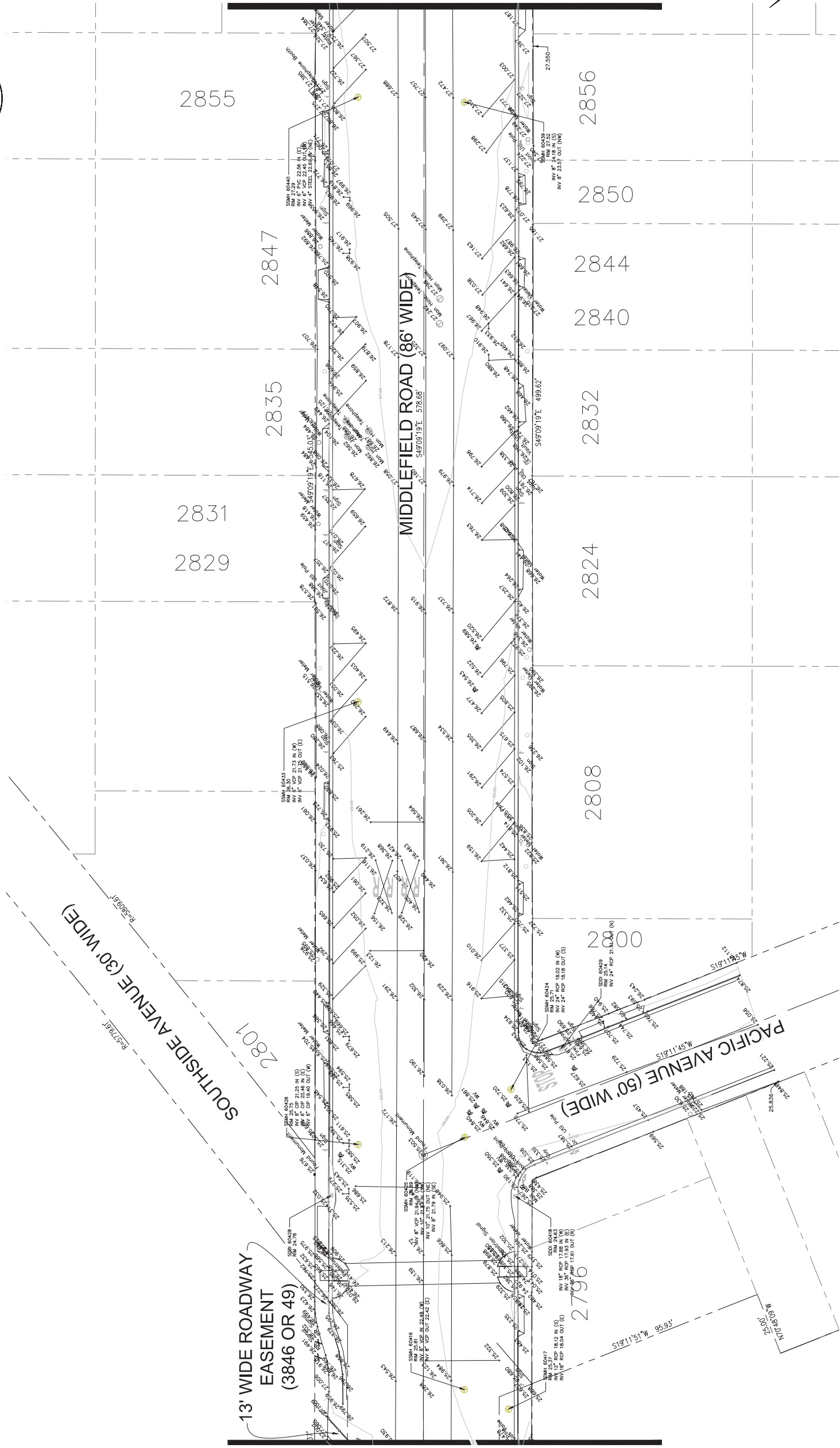
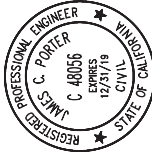
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SEE SHEET S-2

SEE SHEET S-4



(IN FEET)
1 inch = 20 ft.

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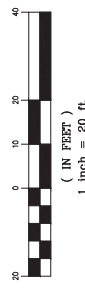
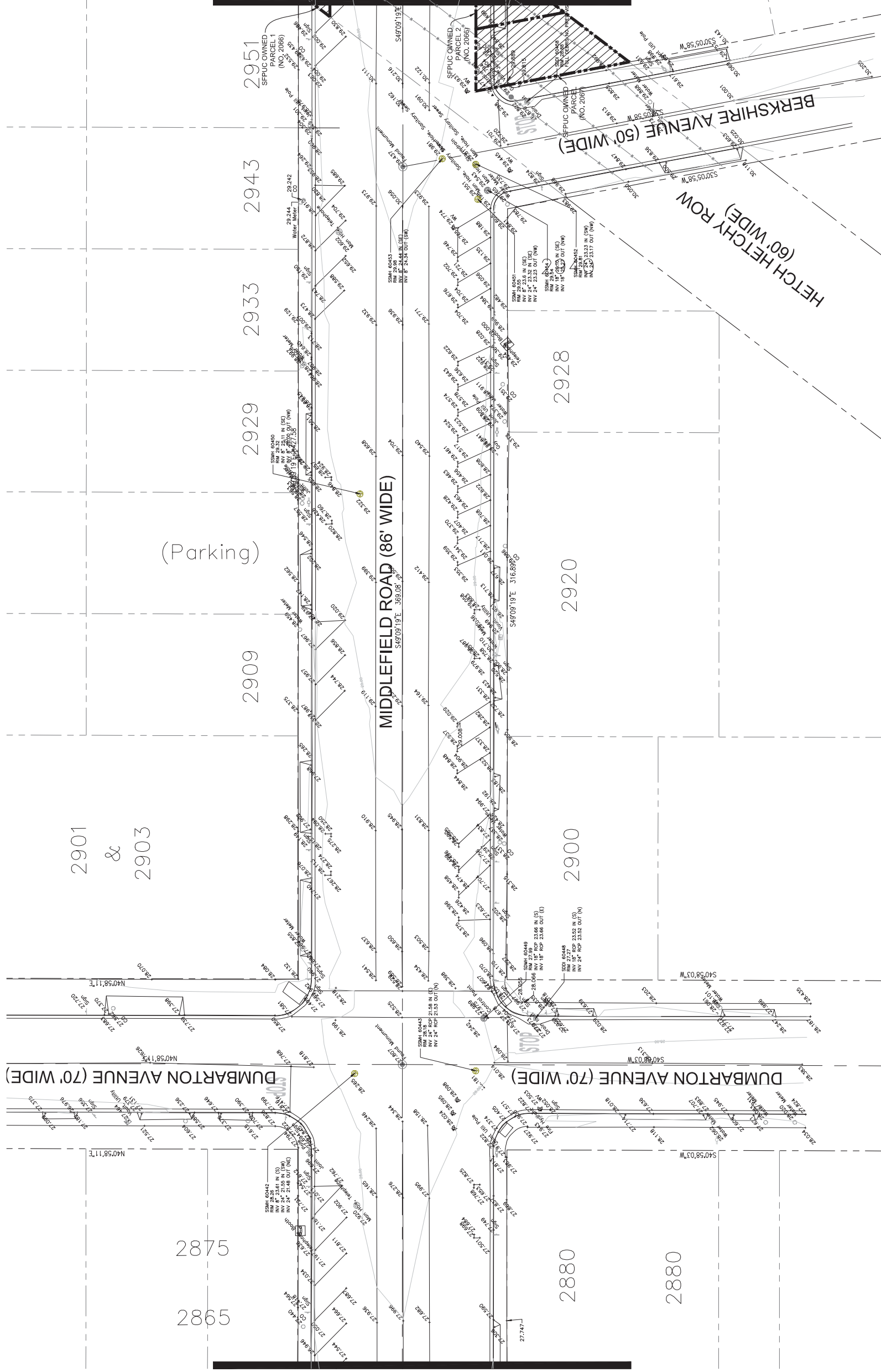
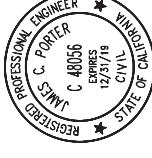
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FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES	0 1 2 3 4	S-3
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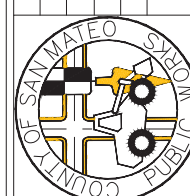
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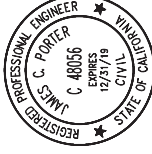
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SEE SHEET S-3

SEE SHEET S-5

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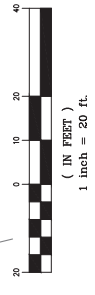
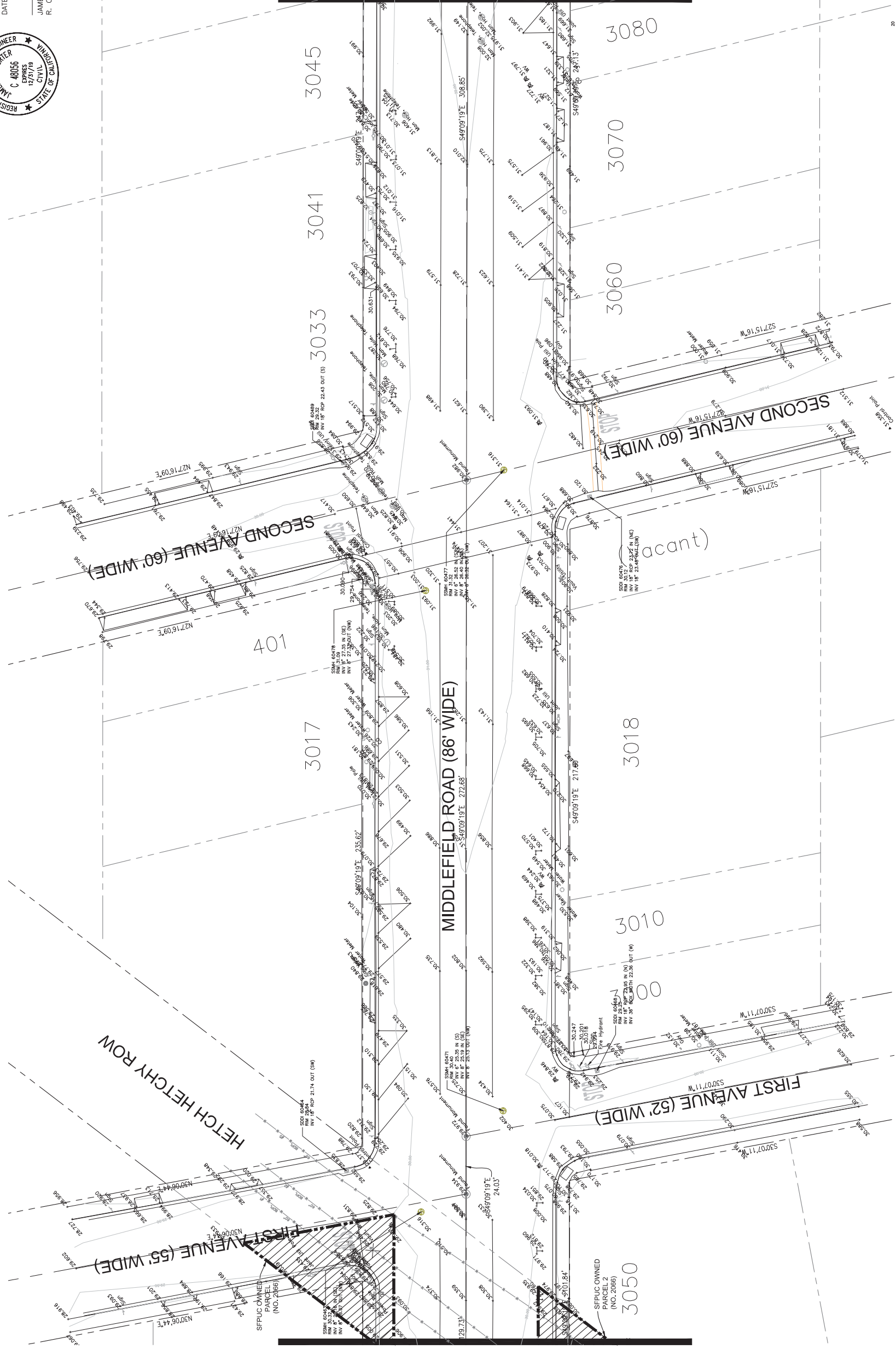
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SEE SHEET S-6

SEE SHEET S-4



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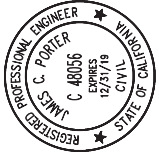


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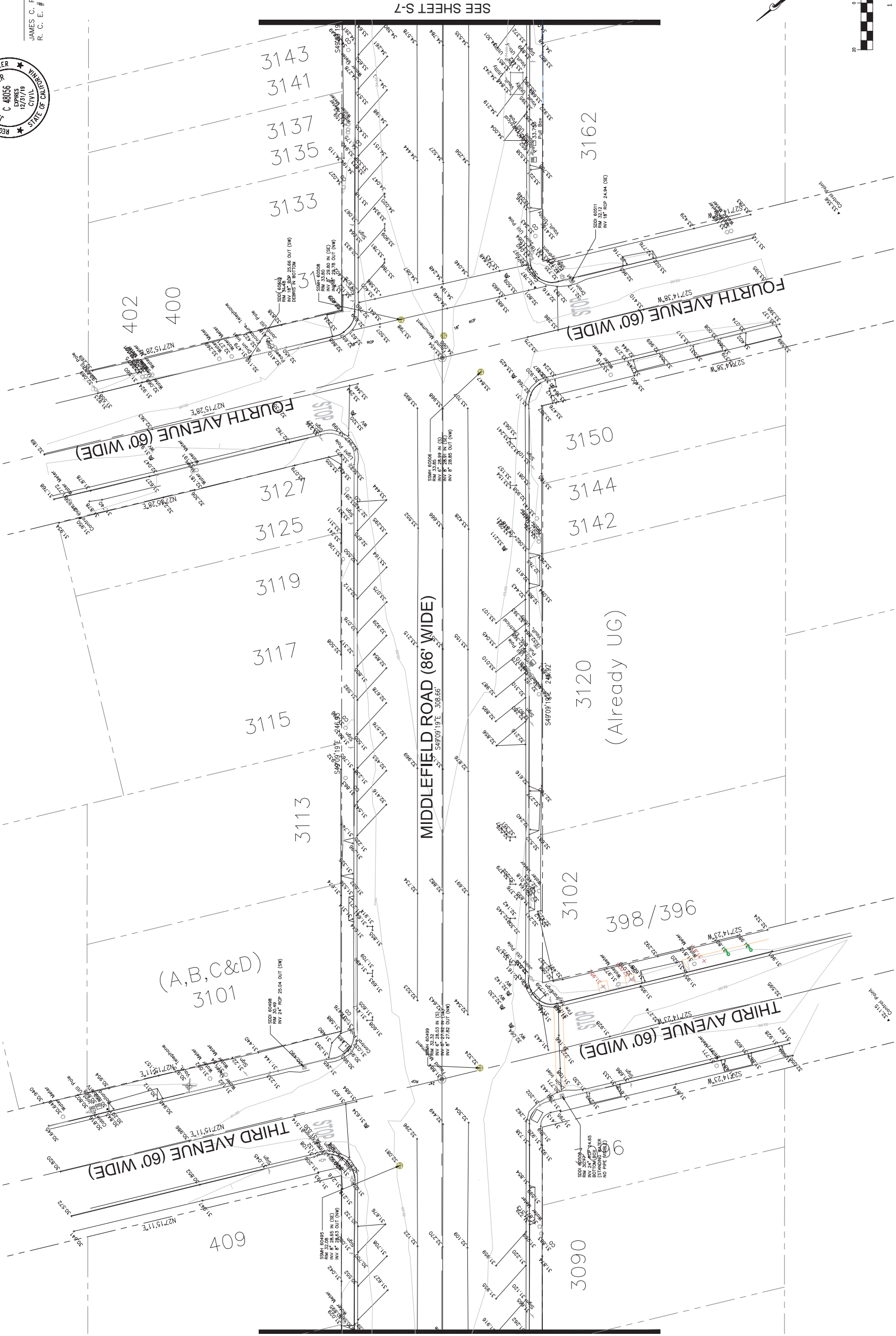
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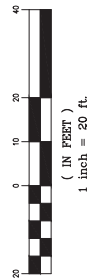


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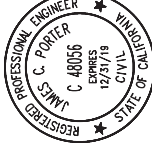
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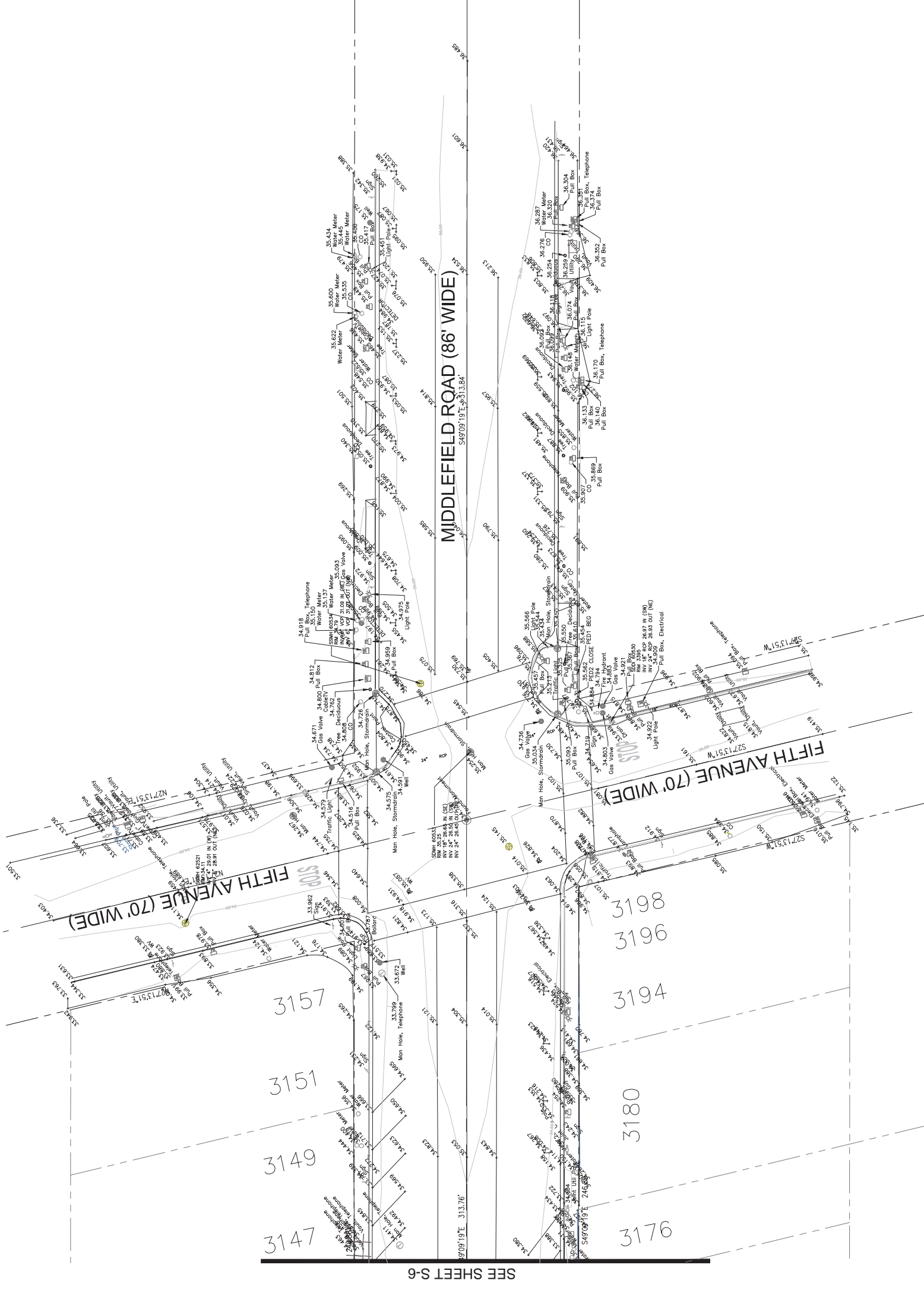
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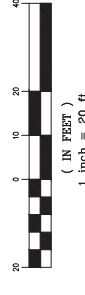
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SEE SHEET S-6

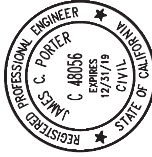


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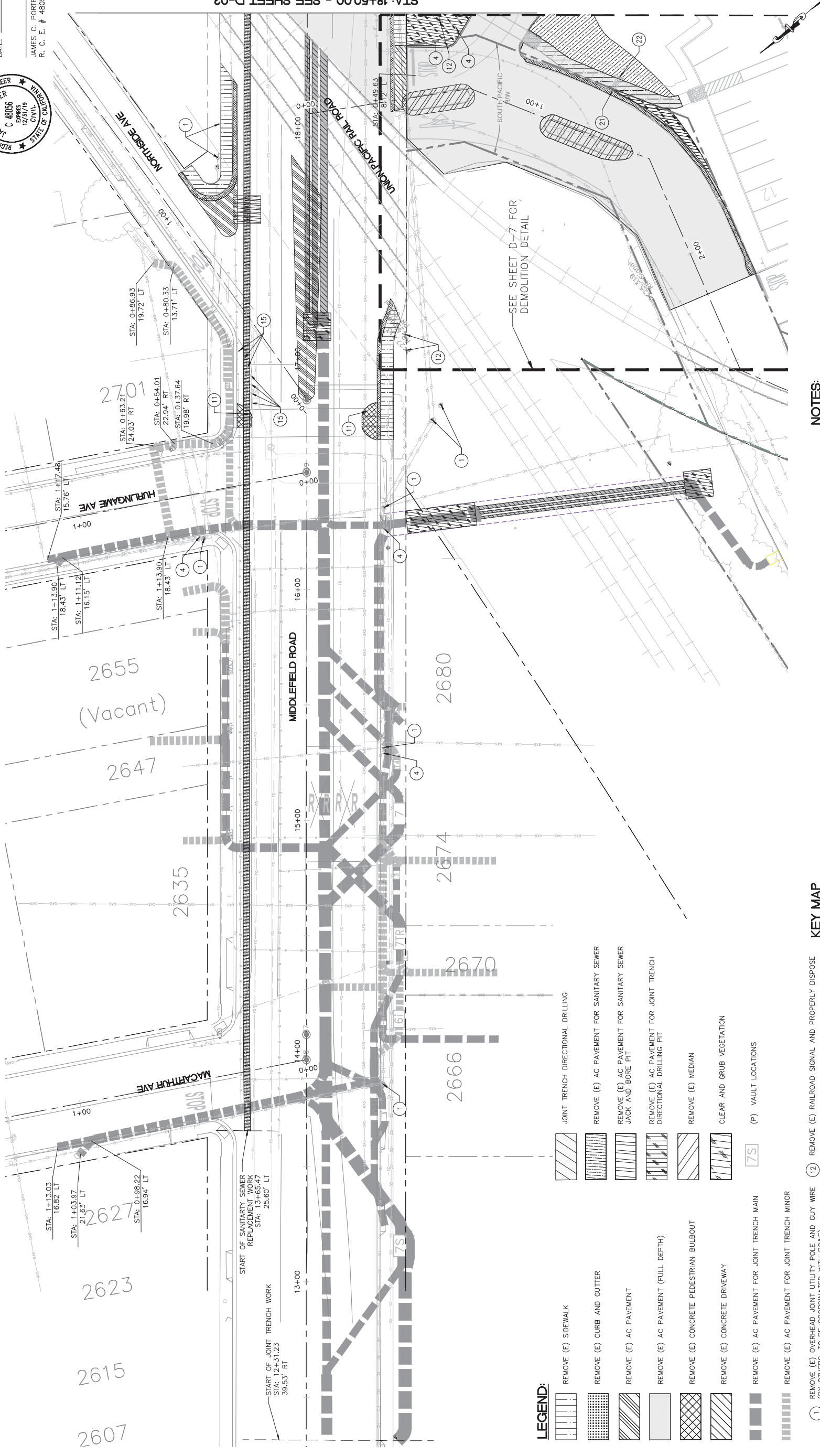


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STA: 18+50.00 - SEE SHEET D-03

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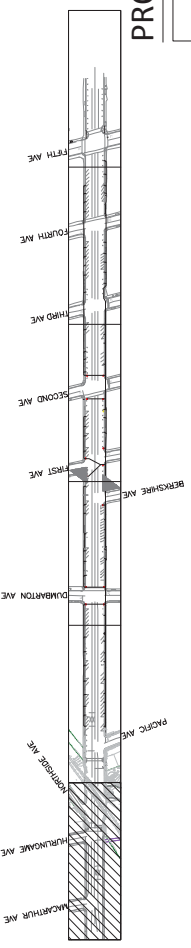


SEE SHEET D-7 FOR DEMOLITION DETAIL

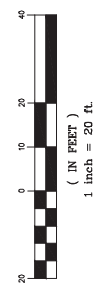
- LEGEND:**
- REMOVE (E) SIDEWALK
 - REMOVE (E) CURB AND GUTTER
 - REMOVE (E) AC PAVEMENT
 - REMOVE (E) AC PAVEMENT (FULL DEPTH)
 - REMOVE (E) CONCRETE PEDESTRIAN BULBOUT
 - REMOVE (E) CONCRETE DRIVEWAY
 - REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MAIN
 - REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MINOR
 - JOINT TRENCH DIRECTIONAL DRILLING
 - REMOVE (E) AC PAVEMENT FOR SANITARY SEWER
 - REMOVE (E) AC PAVEMENT FOR SANITARY SEWER JACK AND BORE PIT
 - REMOVE (E) AC PAVEMENT FOR JOINT TRENCH DIRECTIONAL DRILLING PIT
 - REMOVE (E) MEDIAN
 - CLEAR AND GRUB VEGETATION
 - (P) VAULT LOCATIONS

- NOTES:**
1. SEE SHEET G-3 FOR DEMOLITION NOTES.
 2. SEE JOINT TRENCH COMPOSITE SHEETS FOR (P) VAULT DETAILS.

KEY MAP



- NOTES:**
1. REMOVE (E) OVERHEAD JOINT UTILITY POLE AND GUY WIRE (BY OTHERS, TO BE COORDINATED WITH PG&E)
 2. ADJUST (E) SANITARY SEWER CLEAN OUT TO GRADE
 3. ADJUST (E) WATER METER TO GRADE
 4. RELOCATE (E) STREET SIGN
 5. ADJUST (E) UTILITY VAULT TO GRADE
 6. ADJUST (E) FIRE HYDRANT TO GRADE
 7. ADJUST (E) GAS VALVE TO GRADE
 8. REMOVE (E) SIDEWALK TELEPHONE
 9. ADJUST (E) DRAIN INLET
 10. ADJUST (E) PEDESTRIAN SIGNAL TO GRADE
 11. REMOVE (E) PEDESTRIAN SIGNAL AND SEND TO GRANT YARD
 12. REMOVE (E) RAILROAD SIGNAL AND PROPERLY DISPOSE
 13. REMOVE (E) PULL BOX AND PROPERLY DISPOSE
 14. RELOCATE (E) MAIL BOX
 15. REMOVE (E) BOLLARDS
 16. REMOVE (E) LIGHT POLE (BY OTHERS, TO BE COORDINATED WITH PG&E)
 17. ADJUST (E) SANITARY SEWER MANHOLE TO GRADE
 18. ADJUST (E) STORM DRAIN MANHOLE TO GRADE
 19. ADJUST (E) TELECOMMUNICATIONS MANHOLE TO GRADE
 20. ADJUST (E) MONITORING WELL TO GRADE
 21. REMOVE (E) THROUGH CURB AND SIDEWALK OPENING
 22. REMOVE (E) ROCK SLOPE PROTECTION



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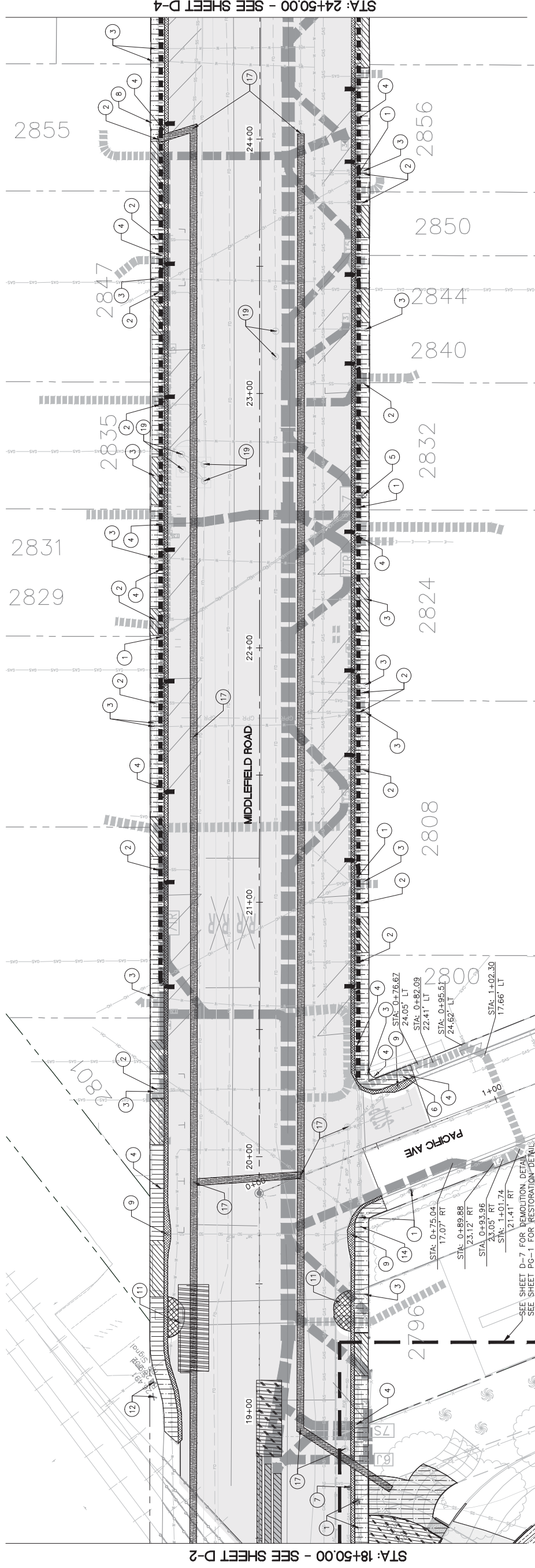
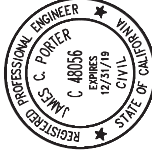


DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	DEMOLITION PLAN	FILE NO: 1/XXXX
REVISION	DATE	
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS		555 COUNTY CENTER, 5TH FLOOR
SAN MATEO COUNTY		REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		D-1
		SHEET X OF X

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



STA: 24+50.00 - SEE SHEET D-4

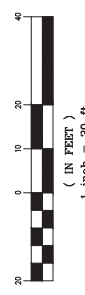
STA: 18+50.00 - SEE SHEET D-2

LEGEND:

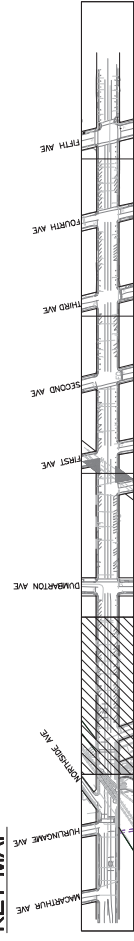
- REMOVE (E) SIDEWALK
- REMOVE (E) CURB AND GUTTER
- REMOVE (E) AC PAVEMENT
- REMOVE (E) AC PAVEMENT (FULL DEPTH)
- REMOVE (E) CONCRETE PEDESTRIAN BULBOUT
- REMOVE (E) CONCRETE DRIVEWAY
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MAIN
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MINOR
- REMOVE (E) AC PAVEMENT FOR SANITARY SEWER
- REMOVE (E) AC PAVEMENT FOR SANITARY SEWER JACK AND BORE PIT
- CLEAR AND GRUB VEGETATION
- JOINT TRENCH DIRECTIONAL DRILLING
- (P) VAULT LOCATIONS
- REMOVE (E) AC PAVEMENT FOR TRAFFIC SIGNAL AND TREE HOLIDAY LIGHT CONDUIT

NOTES:

- 1 REMOVE (E) OVERHEAD JOINT UTILITY POLE AND GUY WIRE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- 2 ADJUST (E) SANITARY SEWER CLEAN OUT TO GRADE
- 3 ADJUST (E) WATER METER TO GRADE
- 4 RELOCATE (E) STREET SIGN
- 5 ADJUST (E) UTILITY VAULT TO GRADE
- 6 ADJUST (E) FIRE HYDRANT TO GRADE
- 7 ADJUST (E) GAS VALVE TO GRADE
- 8 REMOVE (E) SIDEWALK TELEPHONE
- 9 ADJUST (E) DRAIN INLET
- 10 ADJUST (E) PEDESTRIAN SIGNAL TO GRADE
- 11 REMOVE (E) PEDESTRIAN SIGNAL AND SEND TO GRANT YARD
- 12 REMOVE (E) RAILROAD SIGNAL AND PROPERLY DISPOSE
- 13 REMOVE (E) PULL BOX AND PROPERLY DISPOSE
- 14 RELOCATE (E) MAIL BOX
- 15 REMOVE (E) BOLLARDS
- 16 REMOVE (E) LIGHT POLE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- 17 ADJUST (E) SANITARY SEWER MANHOLE TO GRADE
- 18 ADJUST (E) STORM DRAIN MANHOLE TO GRADE
- 19 ADJUST (E) TELECOMMUNICATIONS MANHOLE TO GRADE
- 20 ADJUST (E) MONITORING WELL TO GRADE



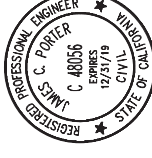
KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

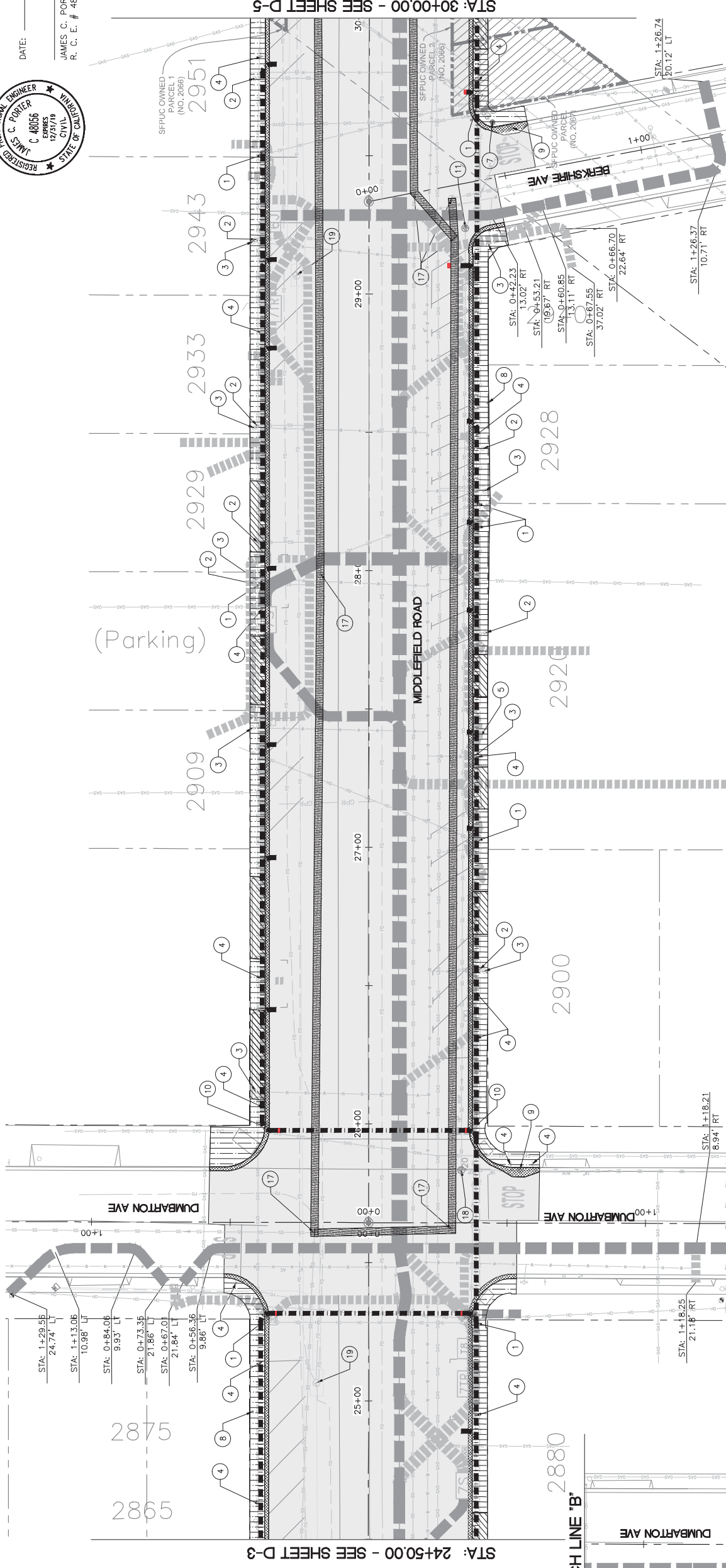
DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	DEMOLITION PLAN	FILE NO: 1/XXXX
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
DATE	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		D-2
0 1 2 3 4		SHEET X OF X

APPROVED:



DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



STA: 24+50.00 - SEE SHEET D-3

STA: 30+00.00 - SEE SHEET D-5

MATCH LINE 'B'

MATCH LINE 'B'

LEGEND:

- REMOVE (E) SIDEWALK
- REMOVE (E) CURB AND GUTTER
- REMOVE (E) AC PAVEMENT
- REMOVE (E) AC PAVEMENT (FULL DEPTH)
- REMOVE (E) CONCRETE PEDESTRIAN BULBOUT
- REMOVE (E) CONCRETE DRIVEWAY
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MAIN
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MINOR
- REMOVE (E) AC PAVEMENT FOR SANITARY SEWER
- REMOVE (E) AC PAVEMENT (VAULT LOCATIONS)
- REMOVE (E) AC PAVEMENT FOR TRAFFIC SIGNAL AND TREE HOLIDAY LIGHT CONDUIT
- (P) TRAFFIC SIGNAL PULL BOX (1.5' X 1.0')

NOTES:

1. SEE SHEET G-3 FOR DEMOLITION NOTES.
2. SEE JOINT TRENCH COMPOSITE SHEETS FOR (P) VAULT DETAILS.

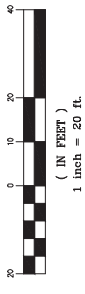
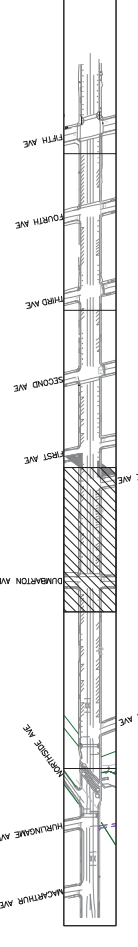
- (1) REMOVE (E) OVERHEAD JOINT UTILITY POLE AND GUY WIRE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- (2) ADJUST (E) SANITARY SEWER CLEAN OUT TO GRADE
- (3) ADJUST (E) WATER METER TO GRADE
- (4) RELOCATE (E) STREET SIGN
- (5) ADJUST (E) UTILITY VAULT TO GRADE
- (6) ADJUST (E) FIRE HYDRANT TO GRADE
- (7) ADJUST (E) GAS VALVE TO GRADE
- (8) REMOVE (E) SIDEWALK TELEPHONE
- (9) ADJUST (E) DRAIN INLET
- (10) ADJUST (E) PEDESTRIAN SIGNAL TO GRADE
- (11) REMOVE (E) PEDESTRIAN SIGNAL AND SEND TO GRANT YARD
- (12) REMOVE (E) RAILROAD SIGNAL AND PROPERLY DISPOSE
- (13) REMOVE (E) PULL BOX AND PROPERLY DISPOSE
- (14) RELOCATE (E) MAIL BOX
- (15) REMOVE (E) BOLLARDS
- (16) REMOVE (E) LIGHT POLE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- (17) ADJUST (E) SANITARY SEWER MANHOLE TO GRADE
- (18) ADJUST (E) STORM DRAIN MANHOLE TO GRADE
- (19) ADJUST (E) TELECOMMUNICATIONS MANHOLE TO GRADE
- (20) ADJUST (E) MONITORING WELL TO GRADE

HUNTINGTON AVE

STA: 3+51.38
8.63' RT

STA: 3+51.44
28.65' RT

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION



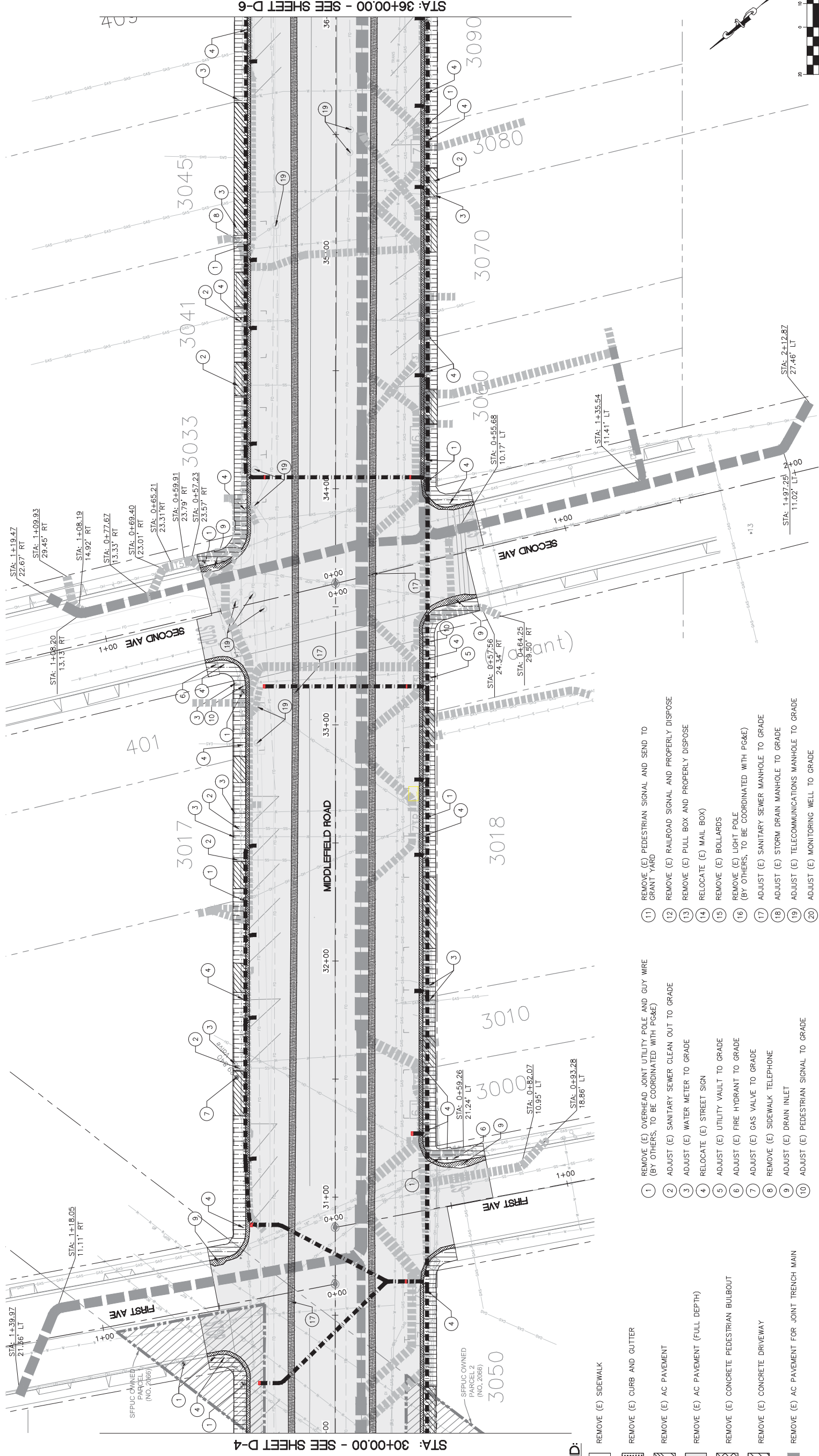
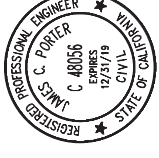
DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	DEMOLITION PLAN	FILE NO: 1/XXXX
REVISION	DATE	
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS		555 COUNTY CENTER, 5TH FLOOR
SAN MATEO COUNTY		REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		D-3
0 1 2 3 4		SHEET X OF X

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\00_CAD\SHEETS\DEMOLITION PLAN\DEMOLITION PLAN - D-03.DWG (D-03)

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



STA: 30+00.00 - SEE SHEET D-4

STA: 36+00.00 - SEE SHEET D-6

LEGEND:

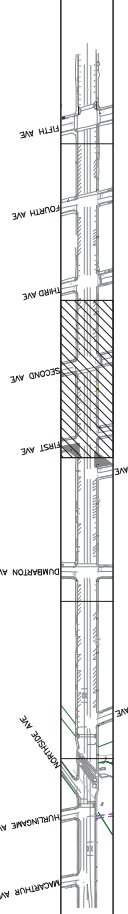
- REMOVE (E) SIDEWALK
- REMOVE (E) CURB AND GUTTER
- REMOVE (E) AC PAVEMENT
- REMOVE (E) AC PAVEMENT (FULL DEPTH)
- REMOVE (E) CONCRETE PEDESTRIAN BULBOUT
- REMOVE (E) CONCRETE DRIVEWAY
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MAIN
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MINOR
- REMOVE (E) AC PAVEMENT FOR SANITARY SEWER
- (P) VAULT LOCATIONS
- REMOVE (E) AC PAVEMENT FOR TRAFFIC SIGNAL AND TREE HOLIDAY LIGHT CONDUIT
- (P) TRAFFIC SIGNAL PULL BOX (1.5' X 1.0')

- 1 REMOVE (E) OVERHEAD JOINT UTILITY POLE AND GUY WIRE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- 2 ADJUST (E) SANITARY SEWER CLEAN OUT TO GRADE
- 3 ADJUST (E) WATER METER TO GRADE
- 4 RELOCATE (E) STREET SIGN
- 5 ADJUST (E) UTILITY VAULT TO GRADE
- 6 ADJUST (E) FIRE HYDRANT TO GRADE
- 7 ADJUST (E) GAS VALVE TO GRADE
- 8 REMOVE (E) SIDEWALK TELEPHONE
- 9 ADJUST (E) DRAIN INLET
- 10 ADJUST (E) PEDESTRIAN SIGNAL TO GRADE
- 11 REMOVE (E) PEDESTRIAN SIGNAL AND SEND TO GRANT YARD
- 12 REMOVE (E) RAILROAD SIGNAL AND PROPERLY DISPOSE
- 13 REMOVE (E) PULL BOX AND PROPERLY DISPOSE
- 14 RELOCATE (E) MAIL BOX
- 15 REMOVE (E) BOLLARDS
- 16 REMOVE (E) LIGHT POLE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- 17 ADJUST (E) SANITARY SEWER MANHOLE TO GRADE
- 18 ADJUST (E) STORM DRAIN MANHOLE TO GRADE
- 19 ADJUST (E) TELECOMMUNICATIONS MANHOLE TO GRADE
- 20 ADJUST (E) MONITORING WELL TO GRADE

NOTES:

- 1. SEE SHEET C-3 FOR DEMOLITION NOTES.
- 2. SEE JOINT TRENCH COMPOSITE SHEETS FOR (P) VAULT DETAILS.

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: AB
CHECKED BY: TS
DRAWN BY: AB

COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
DEMOLITION PLAN

DATE: 04-06-2018
FILE NO: 1/XXXX

REVISION: _____ DATE: _____

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

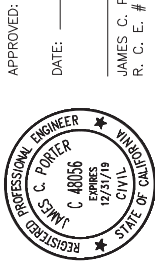
0 1 2 3 4

1 inch = 20 ft.
(IN FBRT)

SCALE: AS SHOWN

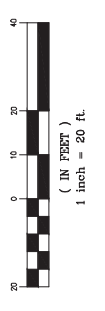
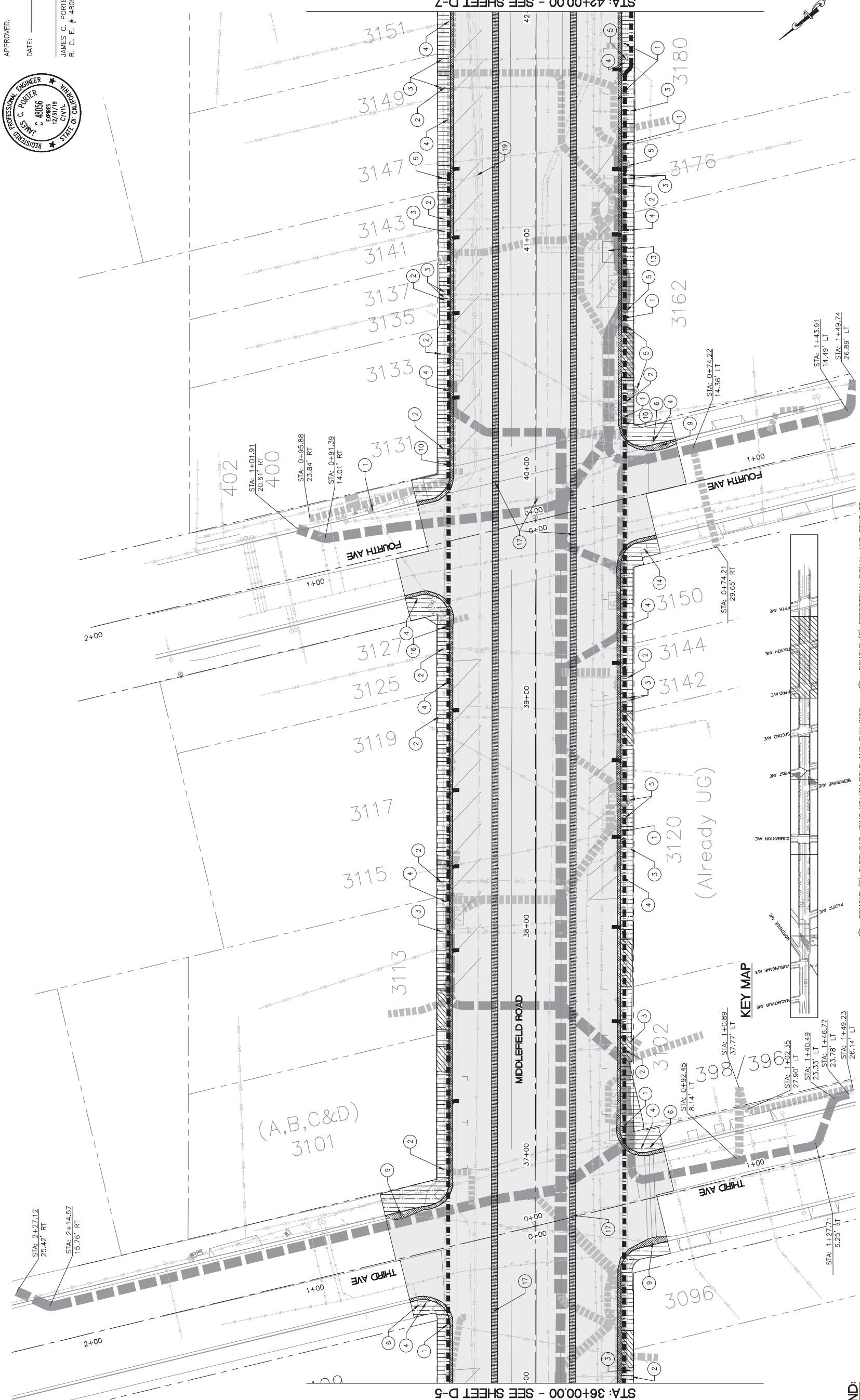
SHEET X OF X
D-4

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\DEMOLITION PLAN\DEMOLITION PLAN - D-04.DWG (D-04)



APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2019

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETSCAPE\000_CAD\SHEETS\DEMOLITION PLAN\DEMOLITION PLAN - D-05.DWG (D-05)

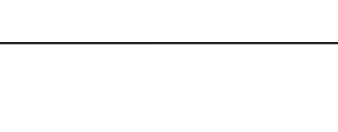


NOTES:
 1. SEE SHEET G-3 FOR DEMOLITION NOTES.
 2. SEE JOINT TRENCH COMPOSITE SHEETS FOR (P) VAULT DETAILS.

- (1) REMOVE (E) OVERHEAD, JOINT UTILITY POLE AND GUY WIRE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- (2) ADJUST (E) SANITARY SEWER CLEAN OUT TO GRADE
- (3) ADJUST (E) WATER METER TO GRADE
- (4) RELOCATE (E) STREET SIGN
- (5) ADJUST (E) UTILITY VAULT TO GRADE
- (6) ADJUST (E) FIRE HYDRANT TO GRADE
- (7) ADJUST (E) GAS VALVE TO GRADE
- (8) REMOVE (E) SIDEWALK TELEPHONE
- (9) ADJUST (E) DRAIN INLET
- (10) ADJUST (E) PEDESTRIAN SIGNAL TO GRADE
- (11) REMOVE (E) PEDESTRIAN SIGNAL AND SEND TO GRANT YARD
- (12) REMOVE (E) RAILROAD SIGNAL AND PROPERLY DISPOSE
- (13) REMOVE (E) PULL BOX AND PROPERLY DISPOSE
- (14) RELOCATE (E) MAIL BOX
- (15) REMOVE (E) BOLLARDS
- (16) REMOVE (E) LIGHT POLE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- (17) ADJUST (E) SANITARY SEWER MANHOLE TO GRADE
- (18) ADJUST (E) STORM DRAIN MANHOLE TO GRADE
- (19) ADJUST (E) TELECOMMUNICATIONS MANHOLE TO GRADE
- (20) ADJUST (E) MONITORING WELL TO GRADE

- REMOVE (E) CONCRETE DRIVEWAY
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MAIN
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MINOR
- REMOVE (E) AC PAVEMENT FOR SANITARY SEWER
- (P) VAULT LOCATIONS
- REMOVE (E) AC PAVEMENT FOR TRAFFIC SIGNAL AND TREE HOLIDAY LIGHT CONDUIT
- REMOVE (E) SIDEWALK
- REMOVE (E) CURB AND GUTTER
- REMOVE (E) AC PAVEMENT
- REMOVE (E) AC PAVEMENT (FULL DEPTH)
- REMOVE (E) CONCRETE PEDESTRIAN BULBOUT

LEGEND:



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	DEMOLITION PLAN	FILE NO: 1/XXXX
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
REVISION	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

D-5 SHEET X OF X



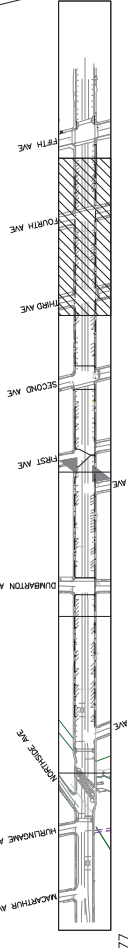
STA: 36+00.00 - SEE SHEET D-5

STA: 42+00.00 - SEE SHEET D-7

(A,B,C&D)
3101

(Already UG)
3120

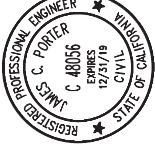
KEY MAP



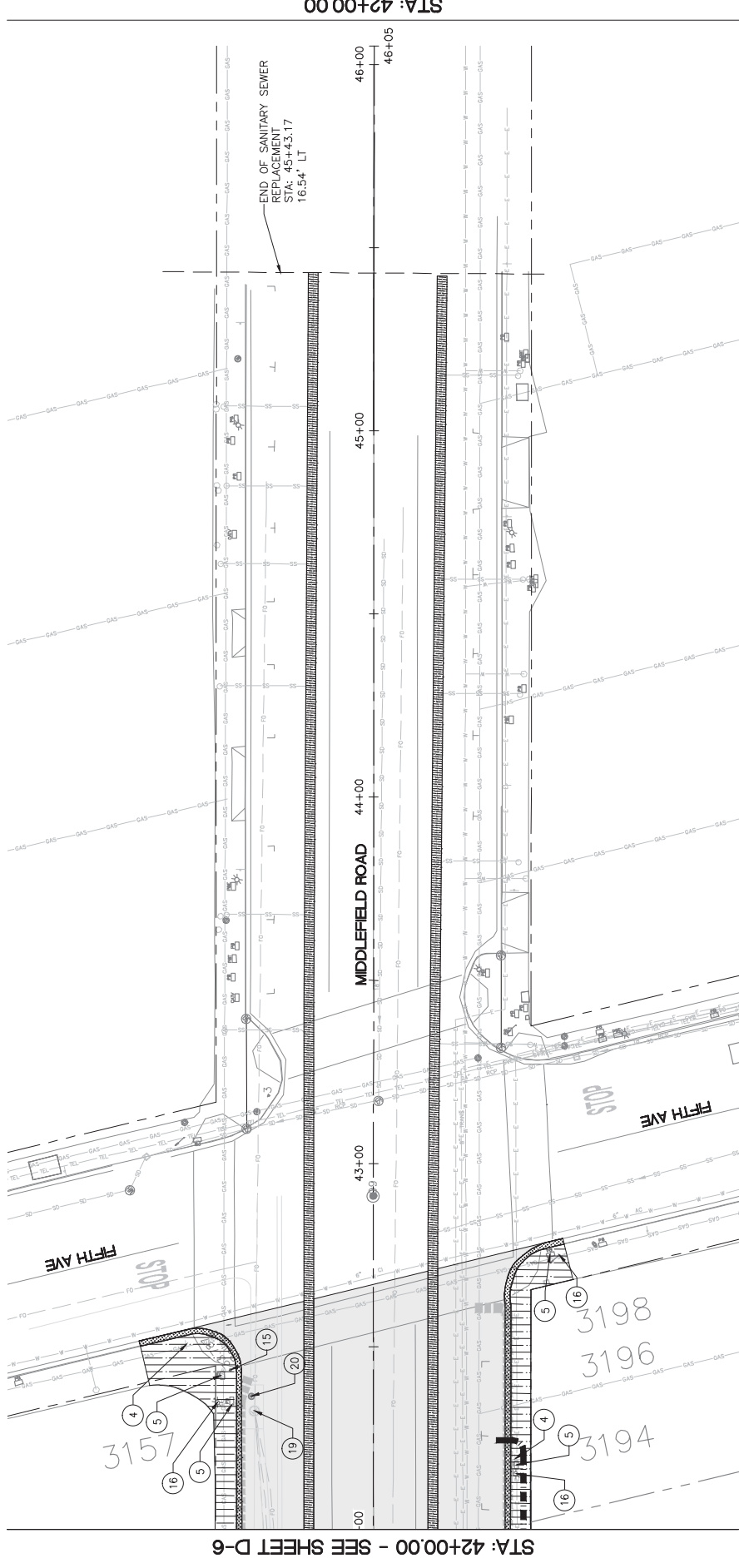
APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\DEMOLITION PLAN\DEMOLITION PLAN - D-06.DWG (D-06)



STA: 42+00.00 - SEE SHEET D-6

STA: 42+00.00

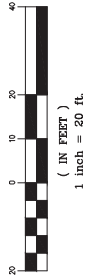
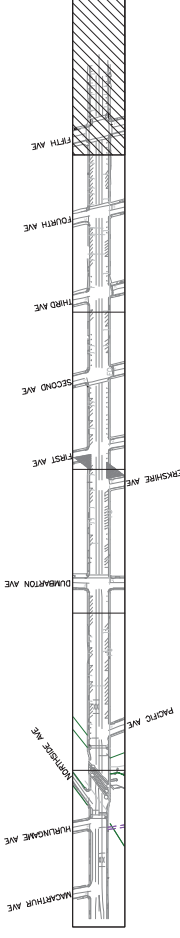
LEGEND:

- REMOVE (E) SIDEWALK
- REMOVE (E) CURB AND GUTTER
- REMOVE (E) AC PAVEMENT
- REMOVE (E) AC PAVEMENT (FULL DEPTH)
- REMOVE (E) CONCRETE PEDESTRIAN BULBOUT
- REMOVE (E) CONCRETE DRIVEWAY
- REMOVE (E) AC PAVEMENT FOR SANITARY SEWER
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MINOR
- REMOVE (E) AC PAVEMENT FOR TRAFFIC SIGNAL AND TREE HOLIDAY LIGHT CONDUIT

NOTES:

- 1 REMOVE (E) OVERHEAD JOINT UTILITY POLE AND GUY WIRE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- 2 ADJUST (E) SANITARY SEWER CLEAN OUT TO GRADE
- 3 ADJUST (E) WATER METER TO GRADE
- 4 RELOCATE (E) STREET SIGN
- 5 ADJUST (E) UTILITY VAULT TO GRADE
- 6 ADJUST (E) FIRE HYDRANT TO GRADE
- 7 ADJUST (E) GAS VALVE TO GRADE
- 8 REMOVE (E) SIDEWALK TELEPHONE
- 9 ADJUST (E) DRAIN INLET
- 10 ADJUST (E) PEDESTRIAN SIGNAL TO GRADE
- 11 REMOVE (E) PEDESTRIAN SIGNAL AND SEND TO GRANT YARD
- 12 REMOVE (E) RAILROAD SIGNAL AND PROPERLY DISPOSE
- 13 REMOVE (E) PULL BOX AND PROPERLY DISPOSE
- 14 RELOCATE (E) MAIL BOX
- 15 REMOVE (E) BOLLARDS
- 16 REMOVE (E) LIGHT POLE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- 17 ADJUST (E) SANITARY SEWER MANHOLE TO GRADE
- 18 ADJUST (E) STORM DRAIN MANHOLE TO GRADE
- 19 ADJUST (E) TELECOMMUNICATIONS MANHOLE TO GRADE
- 20 ADJUST (E) MONITORING WELL TO GRADE

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION



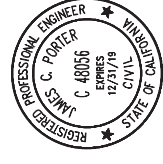
DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	DEMOLITION PLAN	FILE NO: 1/XXXX
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	SAN MATEO COUNTY	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION	DATE	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4
		D-6
		SHEET X OF X

LEGEND:

- REMOVE (E) SIDEWALK
- REMOVE (E) CURB AND GUTTER
- REMOVE (E) AC PAVEMENT
- REMOVE (E) AC PAVEMENT (FULL DEPTH)
- REMOVE (E) MEDIAN
- REMOVE (E) TREATMENT PLANTER
- REMOVE (E) CONCRETE DRIVEWAY
- LIMITS OF WORK
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MAIN

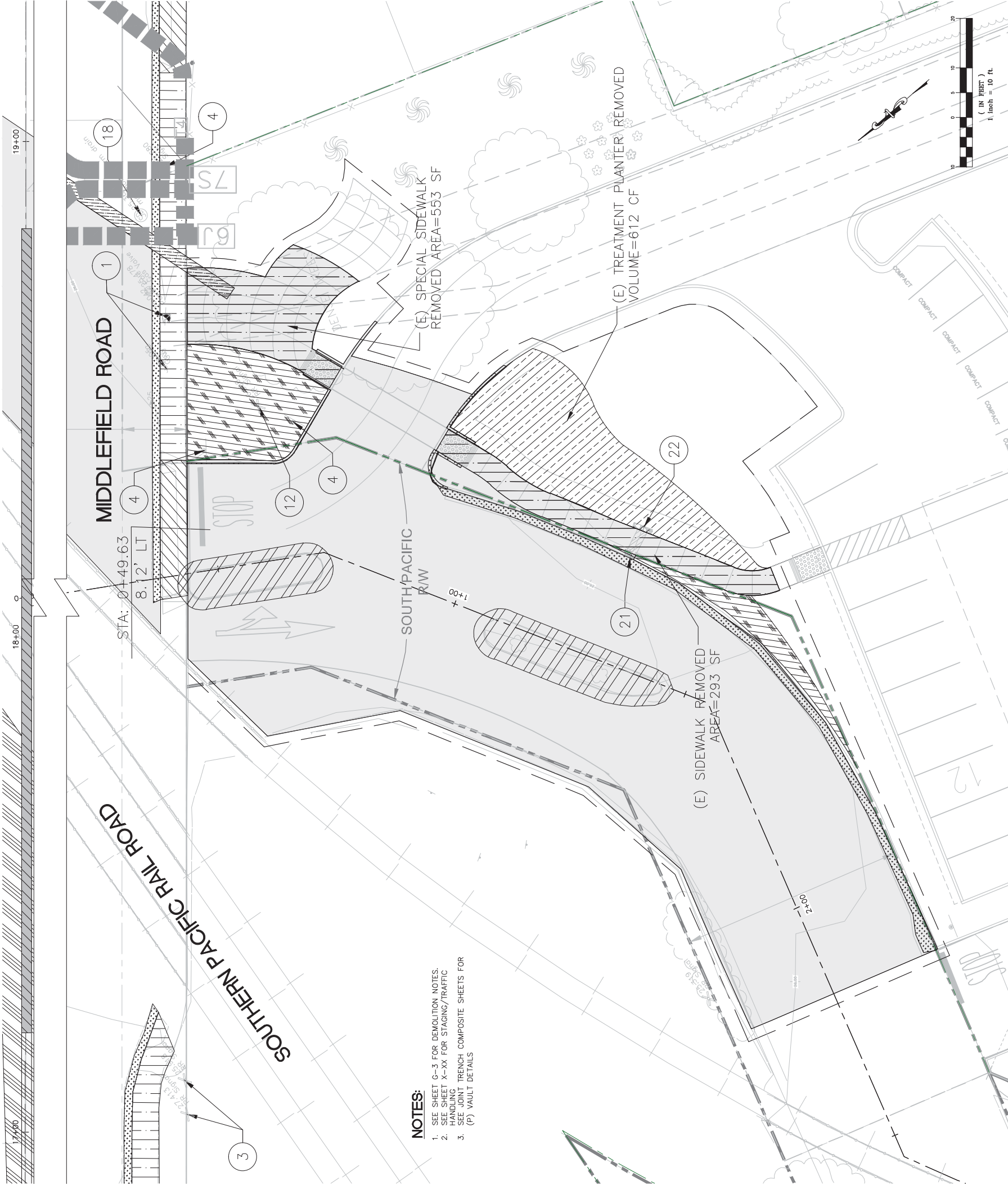
- REMOVE (E) AC PAVEMENT FOR JOINT TRENCH MINOR
- REMOVE (E) AC PAVEMENT FOR SANITARY SEWER
- JOINT TRENCH DIRECTIONAL DRILLING
- CLEAR AND GRUB VEGETATION
- (P) VAULT LOCATIONS

APPROVED:



DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



- NOTES:**
- SEE SHEET G-3 FOR DEMOLITION NOTES.
 - SEE SHEET A-XX FOR STAGING/TRAFFIC
 - SEE JOINT TRENCH COMPOSITE SHEETS FOR (P) VAULT DETAILS

- REMOVE (E) OVERHEAD JOINT UTILITY POLE AND GUY WIRE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- ADJUST (E) SANITARY SEWER CLEAN OUT TO GRADE
- ADJUST (E) WATER METER TO GRADE
- RELOCATE (E) STREET SIGN
- ADJUST (E) UTILITY VAULT TO GRADE
- ADJUST (E) FIRE HYDRANT TO GRADE
- ADJUST (E) GAS VALVE TO GRADE
- REMOVE (E) SIDEWALK TELEPHONE
- ADJUST (E) DRAIN INLET
- ADJUST (E) PEDESTRIAN SIGNAL TO GRADE
- REMOVE (E) PEDESTRIAN SIGNAL AND SEND TO GRANT YARD
- REMOVE (E) RAILROAD SIGNAL AND PROPERLY DISPOSE
- REMOVE (E) PULL BOX AND PROPERLY DISPOSE
- RELOCATE (E) MAIL BOX)
- REMOVE (E) BOLLARDS
- REMOVE (E) LIGHT POLE (BY OTHERS, TO BE COORDINATED WITH PG&E)
- ADJUST (E) SANITARY SEWER MANHOLE TO GRADE
- ADJUST (E) STORM DRAIN MANHOLE TO GRADE
- ADJUST (E) TELECOMMUNICATIONS MANHOLE TO GRADE
- ADJUST (E) MONITORING WELL TO GRADE
- REMOVE (E) THROUGH CURB AND SIDEWALK OPENING
- REMOVE (E) ROCK SLOPE PROTECTION



DESIGNED BY: AB	CHECKED BY: TS	DRAWN BY: AB	DATE	REVISION
COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT REDWOOD JUNCTION DEMOLITION				
COUNTY OF SAN MATEO SAN MATEO COUNTY			555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063	
SCALE: AS SHOWN DATE: 04-06-2018 FILE NO: 1/XXXX			SHEET X OF X D-7	

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



1 inch = 10 ft.

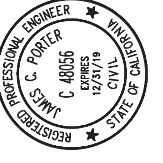
1 (IN FEET)

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETSCAPE\000_CAD\SHEETS\DEMOLITION PLAN\DEMOLITION PLAN - D-07.DWG (0-7)

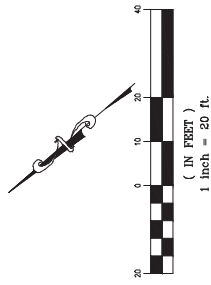
APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

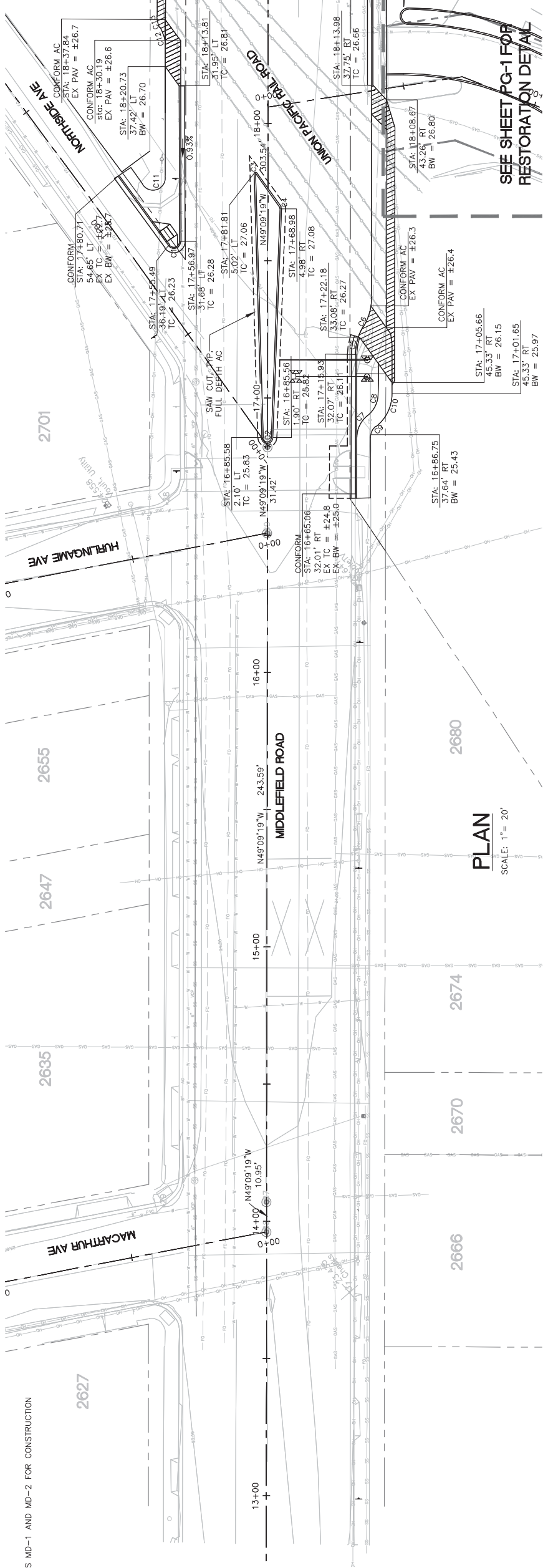


Curve #	Length	Radius	Delta
C1	6.28	2.90	143°59'18"
C2	6.15	2.00	176°08'54"
C3	1.27	0.50	146°01'07"
C4	0.66	1.00	37°49'58"
C5	10.78	20.00	30°53'02"
C6	10.80	20.00	30°56'30"
C7	9.18	10.12	51°58'15"
C8	9.16	10.12	51°50'01"
C9	4.65	5.12	51°58'15"
C10	13.68	15.12	51°50'01"
C11	12.35	4.51	157°00'40"
C12	4.58	10.00	26°14'33"
C13	4.59	10.00	26°17'46"



STA: 18+50.00 - SEE SHEET PP-2

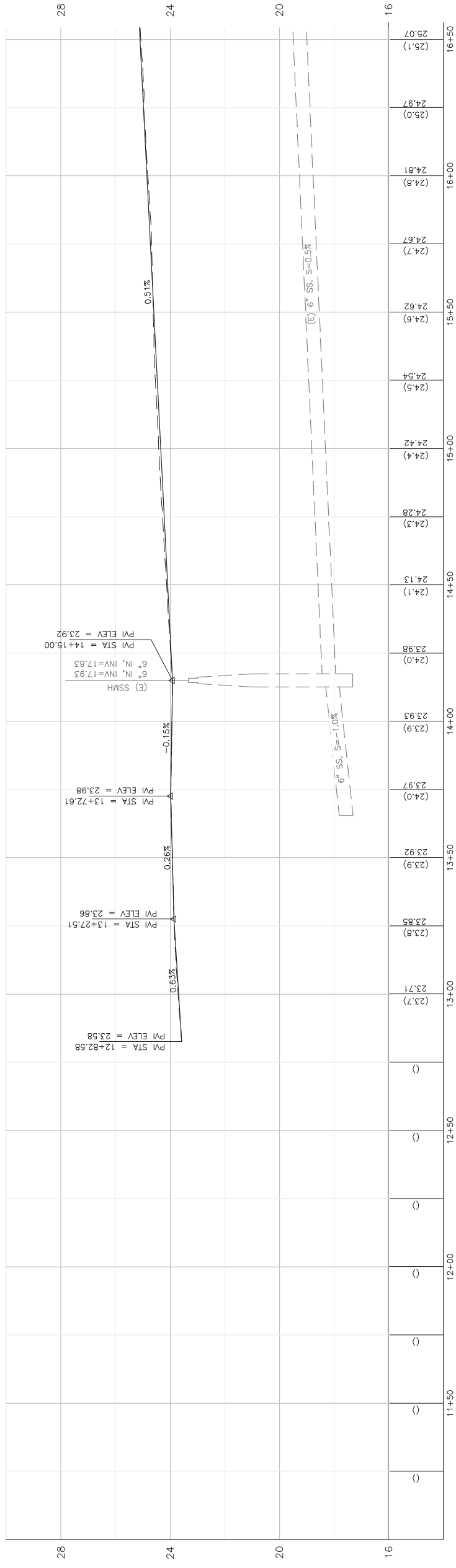
SEE SHEET PG-1 FOR RESTORATION DETAIL



PLAN
SCALE: 1" = 20'

NOTES:

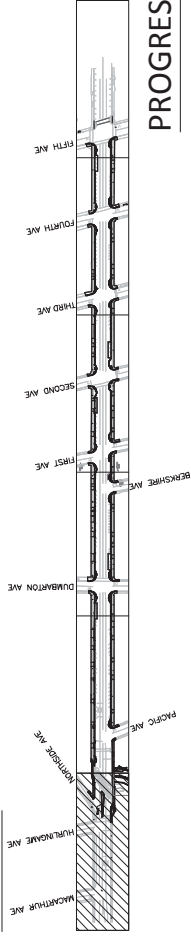
- SEE SHEETS MD-1 AND MD-2 FOR CONSTRUCTION DETAILS.



PROFILE

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION



COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
PLAN AND PROFILE

DESIGNED BY: EA
CHECKED BY: TS
DRAWN BY: EA

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY

REVISION
DATE

555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

SCALE: AS SHOWN
DATE: 04-06-2018
FILE NO: 1/XXXX

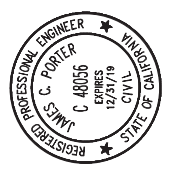
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

PP-1
SHEET X OF X

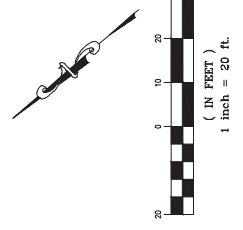
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APPROVED: _____
 DATE: _____

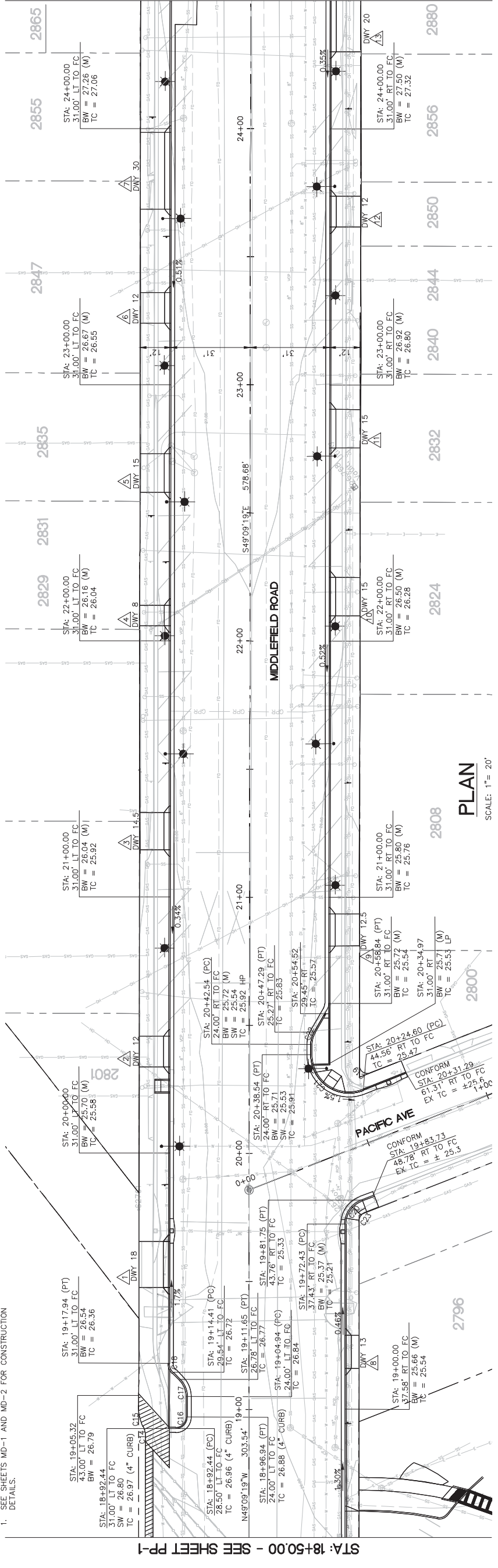


JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2019

Curve #	Length	Radius	Delta
C14	4.26	10.00	24°24'07"
C15	8.52	20.00	24°24'07"
C16	7.07	4.50	90°00'00"
C17	7.46	9.50	45°00'00"
C18	3.93	5.00	45°00'00"
C19	5.82	3.00	111°10'07"
C20	11.98	10.00	68°37'43"
C21	29.26	15.00	111°44'48"
C22	4.97	9.50	30°00'00"
C23	4.79	4.00	68°37'43"



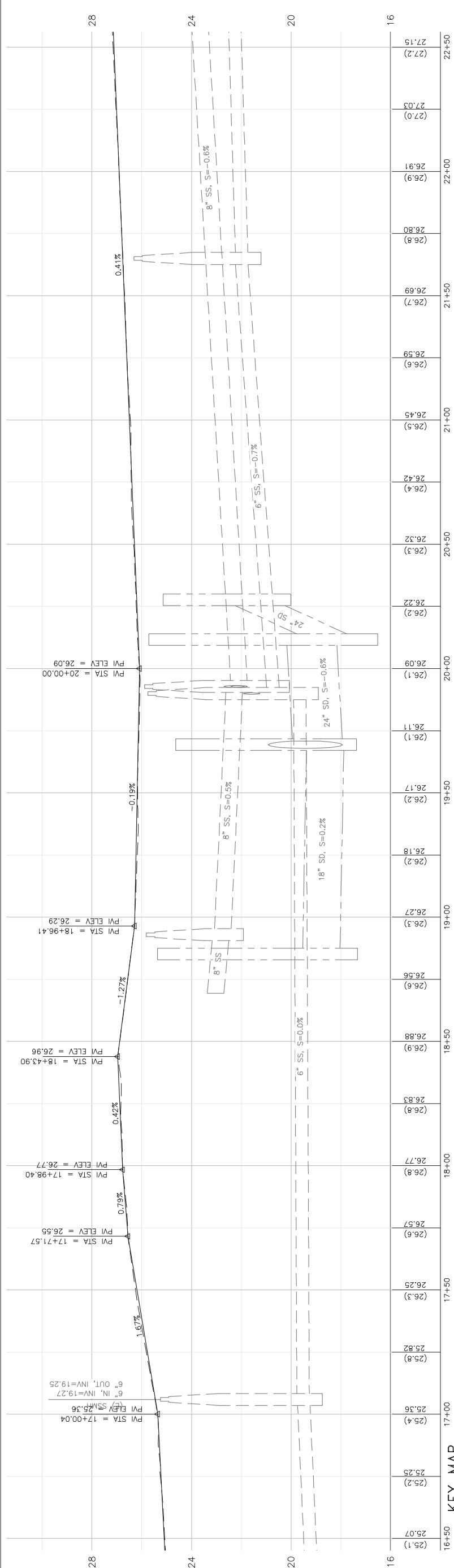
STA: 18+50.00 - SEE SHEET PP-1
 STA: 18+50.00 - SEE SHEET PP-3



PLAN
 SCALE: 1" = 20'

NOTES:

- SEE SHEETS MD-1 AND MD-2 FOR CONSTRUCTION DETAILS.



DESIGNED BY: EA
 CHECKED BY: TS
 DRAWN BY: EA
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 SAN MATEO COUNTY

COUNTY OF SAN MATEO
 MIDDLEFIELD ROAD IMPROVEMENT PROJECT
PLAN AND PROFILE

SCALE: AS SHOWN
 DATE: 04-06-2018
 FILE NO: 1/XXXX

PROFILE
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 2'

FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

REVISION

DATE

PP-2
 SHEET X OF X



KEY MAP

555 COUNTY CENTER, 5TH FLOOR
 REDWOOD CITY, CALIFORNIA 94063

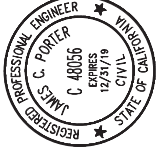
PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

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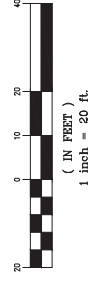
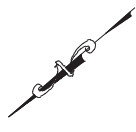
DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

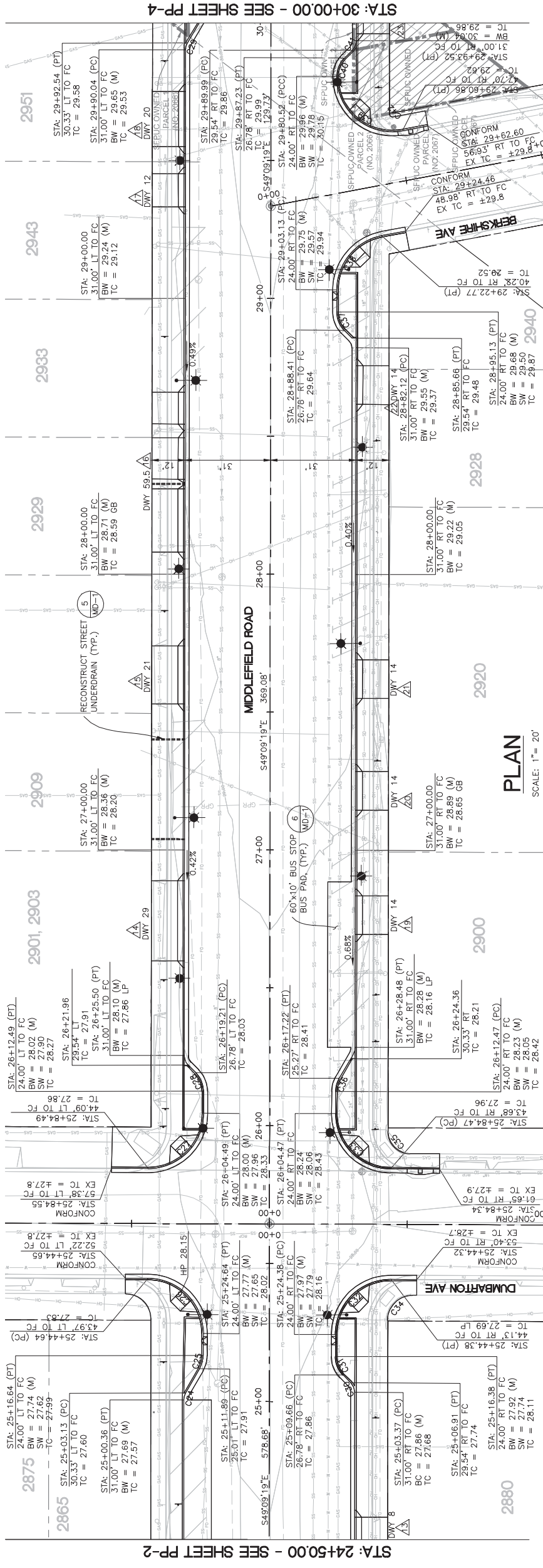


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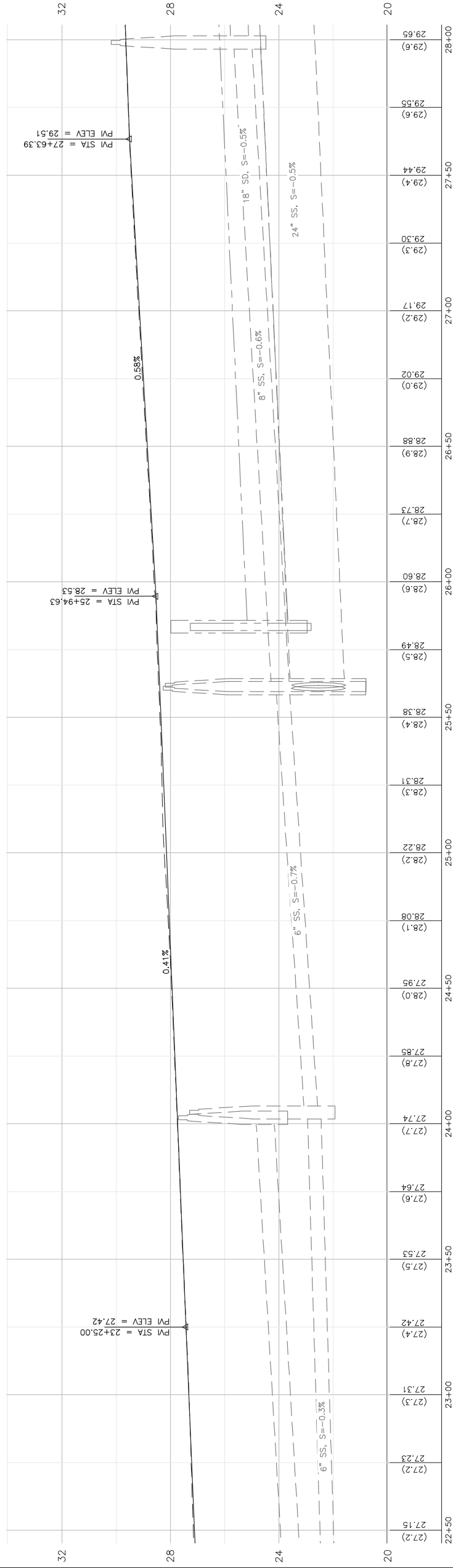
1. SEE SHEETS MD-1 AND MD-2 FOR CONSTRUCTION DETAILS.
2. TRAFFIC SIGN, TRAFFIC SIGNAL LIGHT, FIRE HYDRANT, STREET SIGN AND ANY OTHER FEATURES AND THEIR FOUNDATIONS SHOULD NOT BE PLACED WITHIN THE FOOTPRINT OF THE PIPELINE.



FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAP\000_CAD\SHEETS\PLAN AND PROFILES\PP-3.PLAN & PROFILE.DWG (PP-3)

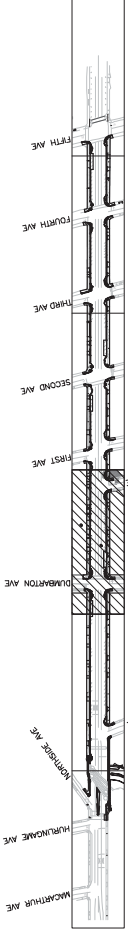


PLAN
SCALE: 1" = 20'



Curve #	Length	Radius	Delta
C24	2.62	5.00	30°00'00"
C25	4.97	9.50	30°00'00"
C26	31.39	20.00	89°54'59"
C27	31.51	20.00	90°15'27"
C28	7.46	9.50	45°00'00"
C29	2.62	5.00	30°00'00"
C30	3.93	5.00	45°00'00"
C31	7.46	9.50	45°00'00"
C32	31.54	20.00	90°21'29"
C33	31.27	20.00	89°35'21"
C34	14.10	9.00	89°47'20"
C35	12.51	8.00	89°35'21"
C36	4.97	9.50	30°00'00"
C37	7.46	9.50	45°00'00"
C38	27.62	20.00	79°07'03"
C39	35.14	20.00	100°39'36"
C40	7.46	9.50	45°00'00"
C41	3.93	5.00	45°00'00"
C42	2.20	1.25	100°39'36"

KEY MAP



PROFILE

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



DESIGNED BY: EA	CHECKED BY: TS	DRAWN BY: EA	DATE
REVISION			
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES			
0 1 2 3 4			

PLAN AND PROFILE

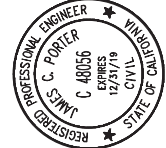
COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

APPROVED:

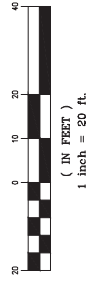
DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



NOTES:

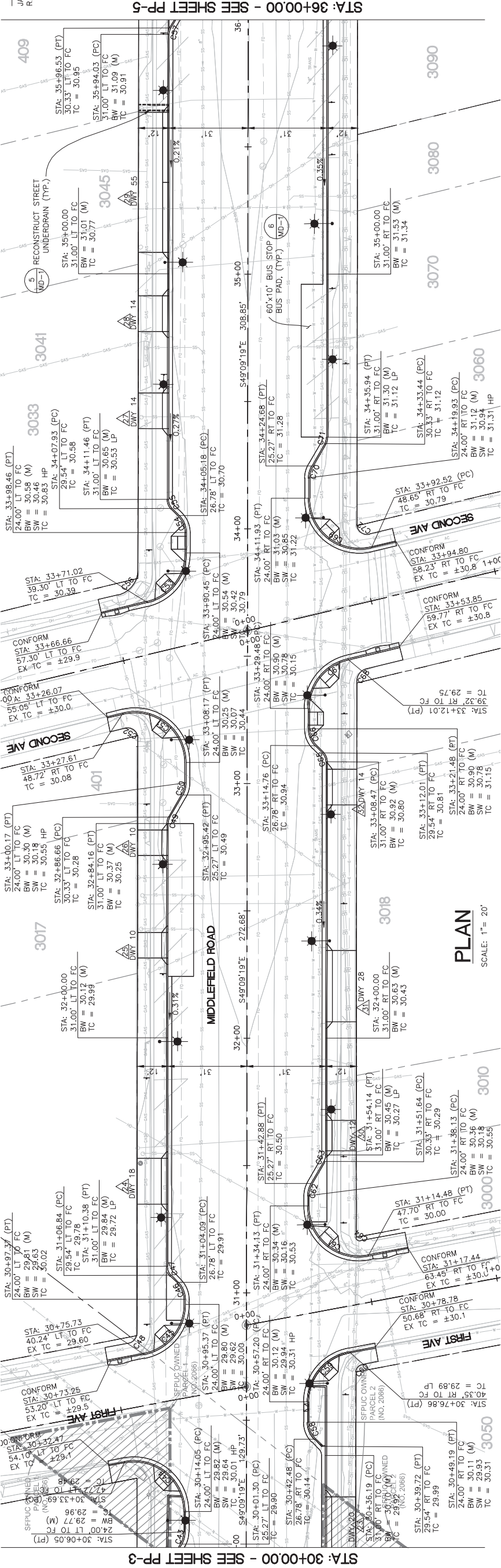
- SEE SHEETS MD-1 AND MD-2 FOR CONSTRUCTION DETAILS.
- TRAFFIC SIGN, TRAFFIC SIGNAL LIGHT, FIRE HYDRANT, STREET SIGN AND ANY OTHER FEATURES AND THEIR FOUNDATIONS SHOULD NOT BE PLACED WITHIN THE FOOTPRINT OF THE PIPELINE.



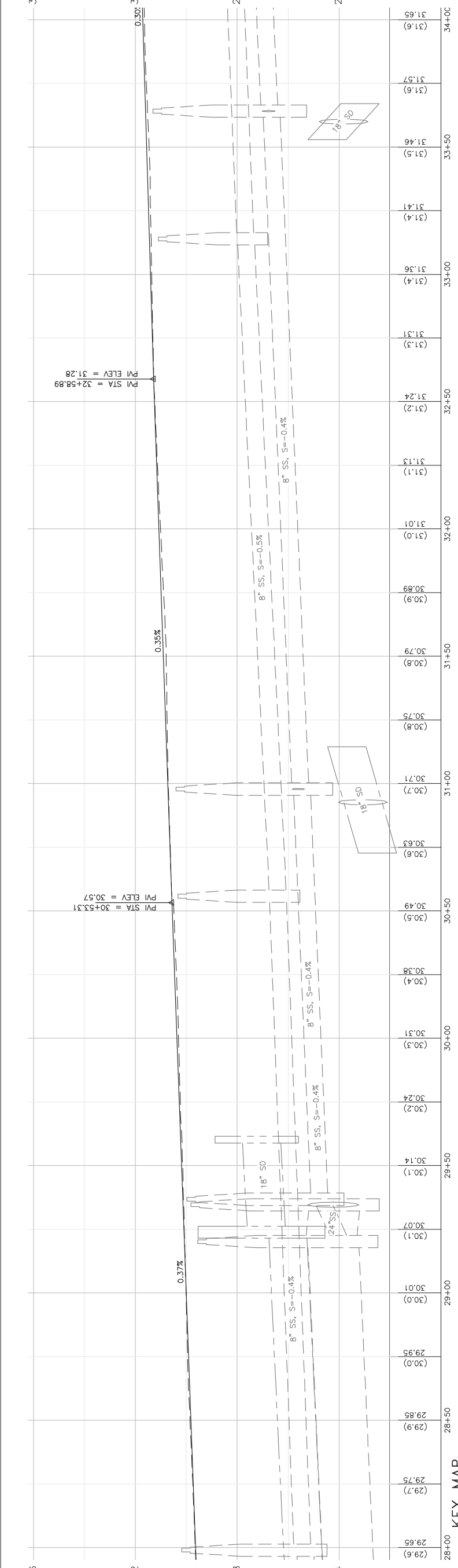
Curve Table

Curve #	Length	Radius	Delta
C43	4.97	9.50	30°00'00"
C44	35.21	20.00	100°51'58"
C45	27.84	20.00	79°10'07"
C46	7.46	9.50	45°00'00"
C47	3.93	5.00	45°00'00"
C48	5.53	4.00	79°10'07"
C49	2.62	5.00	30°00'00"
C50	4.97	9.50	30°00'00"
C51	36.18	20.00	103°38'19"
C52	7.24	4.00	103°38'16"
C53	26.67	20.00	76°23'56"
C54	7.46	9.50	45°00'00"
C55	3.93	5.00	45°00'00"
C56	13.33	10.00	76°23'56"
C57	2.62	5.00	30°00'00"
C58	7.46	9.50	45°00'00"
C59	27.74	20.00	79°28'45"
C60	4.16	3.00	79°28'45"
C61	35.13	20.00	100°39'11"
C62	4.97	9.50	30°00'00"
C63	2.62	5.00	30°00'00"
C64	2.46	1.50	93°50'37"
C65	3.93	5.00	45°00'00"
C66	7.46	9.50	45°00'00"
C67	26.69	20.00	76°28'09"
C68	6.67	5.00	76°28'09"
C69	36.11	20.00	103°26'14"
C70	4.97	9.50	30°00'00"
C71	2.62	5.00	30°00'00"
C72	7.22	4.00	103°26'14"

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\PLAN AND PROFILES\PP-4-PLAN & PROFILE.DWG (PP-4)

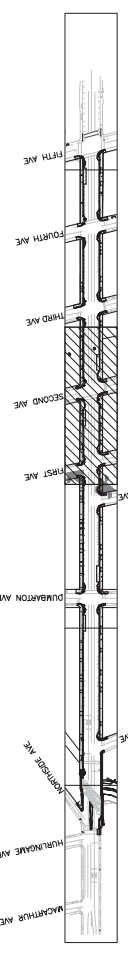


PLAN
SCALE: 1" = 20'



PROFILE

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



KEY MAP



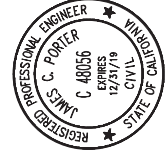
DESIGNED BY: EA	CHECKED BY: TS	DRAWN BY: EA	DATE	REVISION
COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT PLAN AND PROFILE 555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063				
SCALE: AS SHOWN	DATE: 04-06-2018	FILE NO: 1/XXXX		
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				PP-4 SHEET X OF X

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

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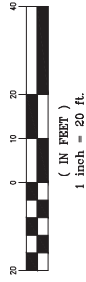
DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

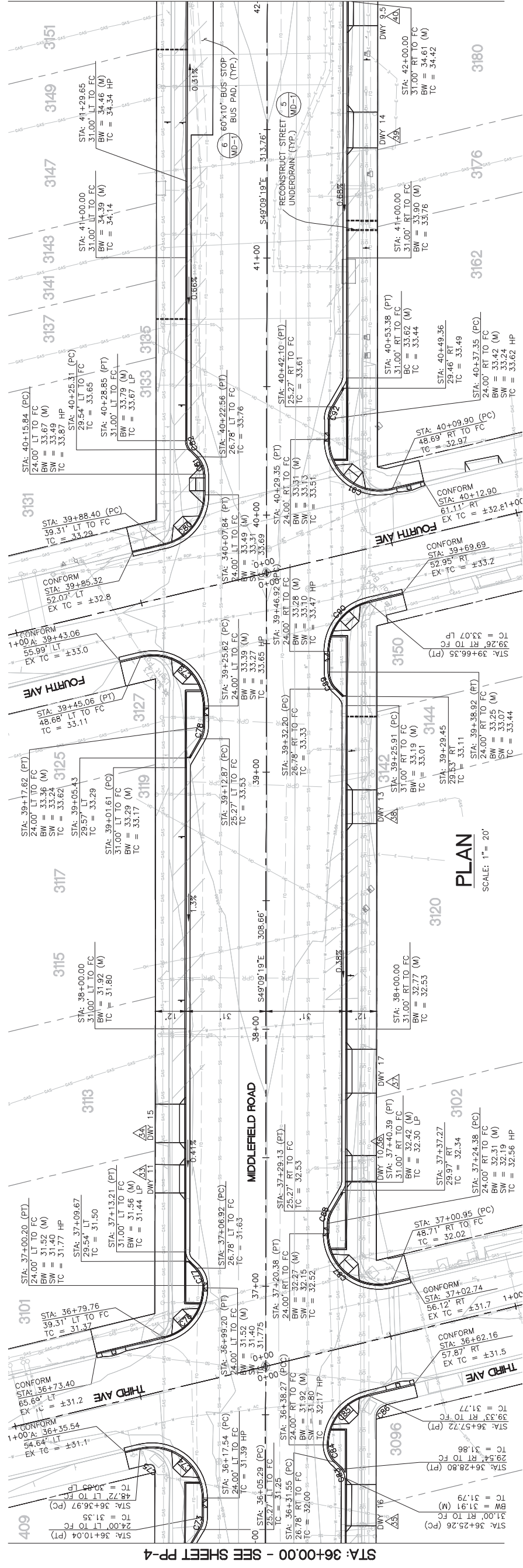


NOTES:

- 1. SEE SHEETS MD-1 AND MD-2 FOR CONSTRUCTION DETAILS.

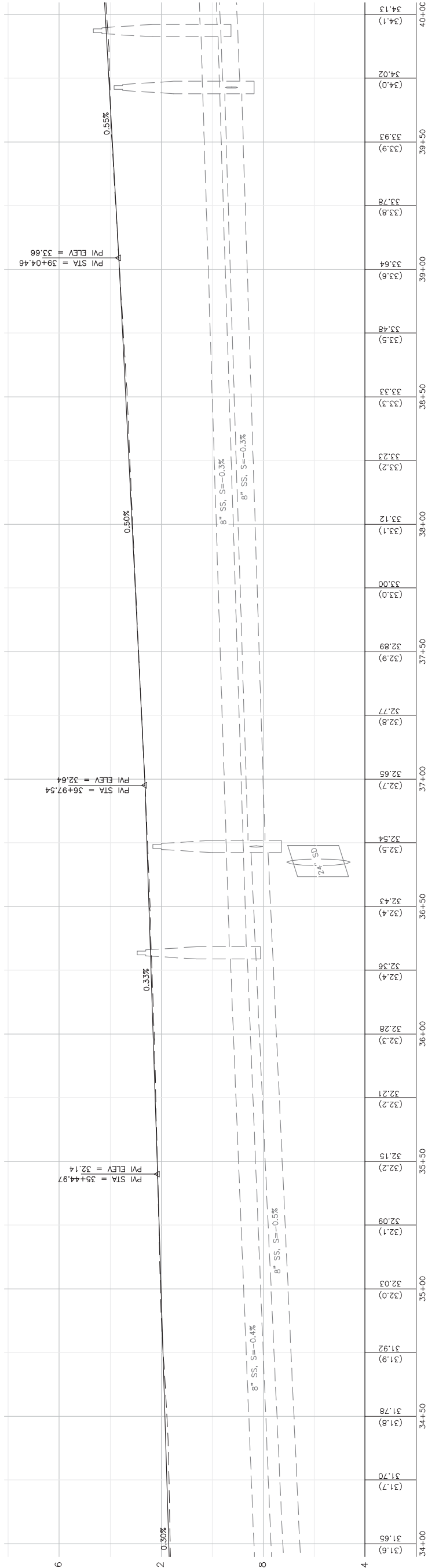


STA: 42+00.00 - SEE SHEET PP-6

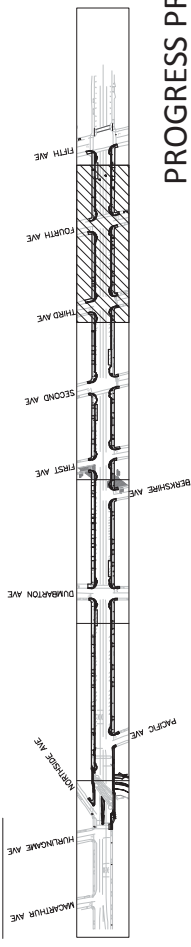


PLAN
SCALE: 1" = 20'

Curve #	Length	Radius	Delta
C73	4.97	9.50	30°00'00"
C74	36.18	20.00	103°39'01"
C75	3.62	2.00	103°39'01"
C76	26.69	20.00	76°27'04"
C77	7.46	9.50	45°00'00"
C78	4.97	9.50	30°00'00"
C79	36.14	20.00	103°31'18"
C80	26.68	20.00	76°26'08"
C81	7.46	9.50	45°00'00"
C82	3.93	5.00	45°00'00"
C83	3.93	5.00	45°00'00"
C84	7.46	9.50	45°00'00"
C85	26.71	20.00	76°30'35"
C86	6.68	5.00	76°30'35"
C87	36.17	20.00	103°37'47"
C88	4.97	9.50	30°00'00"
C89	7.46	9.50	45°00'00"
C90	26.63	20.00	76°17'30"
C91	36.15	20.00	103°34'24"
C92	4.97	9.50	30°00'00"



KEY MAP



PROFILE

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
PLAN AND PROFILE

DESIGNED BY: EA
CHECKED BY: TS
DRAWN BY: EA

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY

555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

SCALE: AS SHOWN
DATE: 04-06-2018
FILE NO: 1/XXXX

REVISION
DATE

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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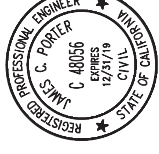
PP-5
SHEET X OF X

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

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DATE:

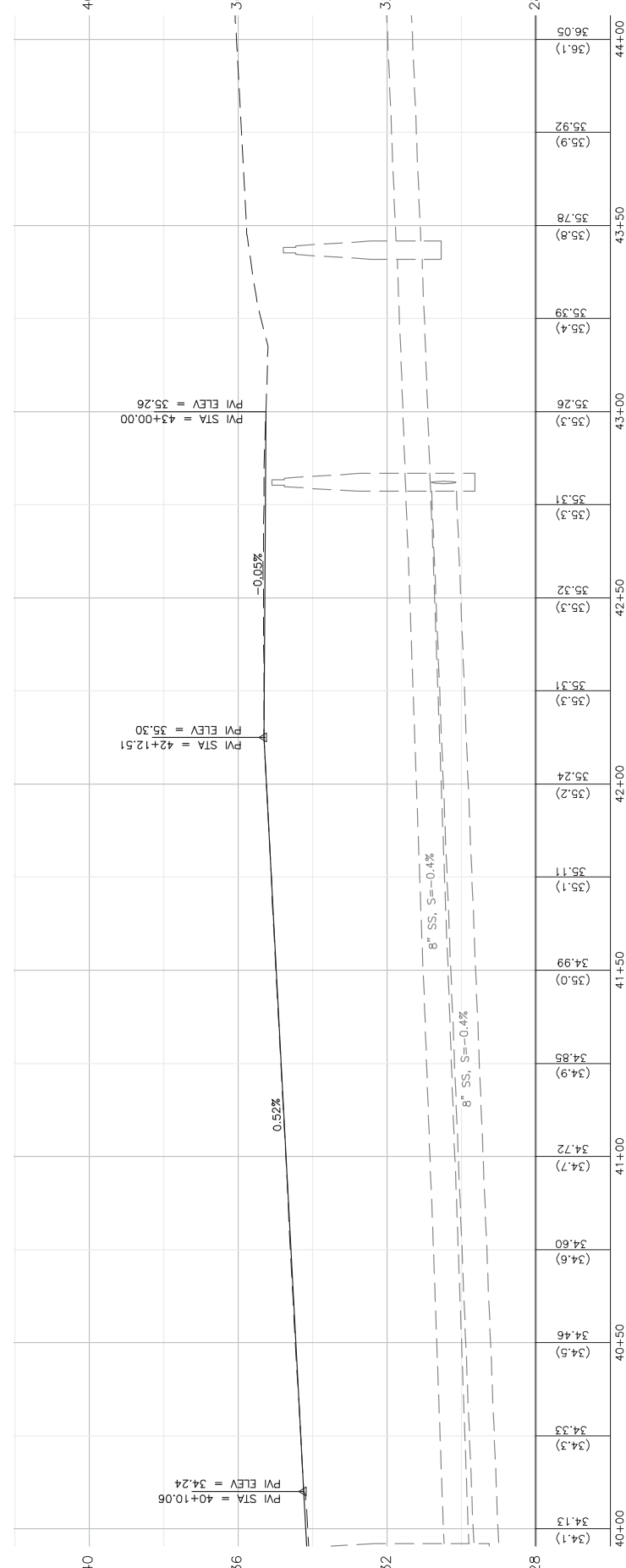
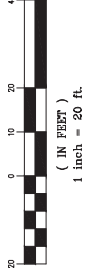
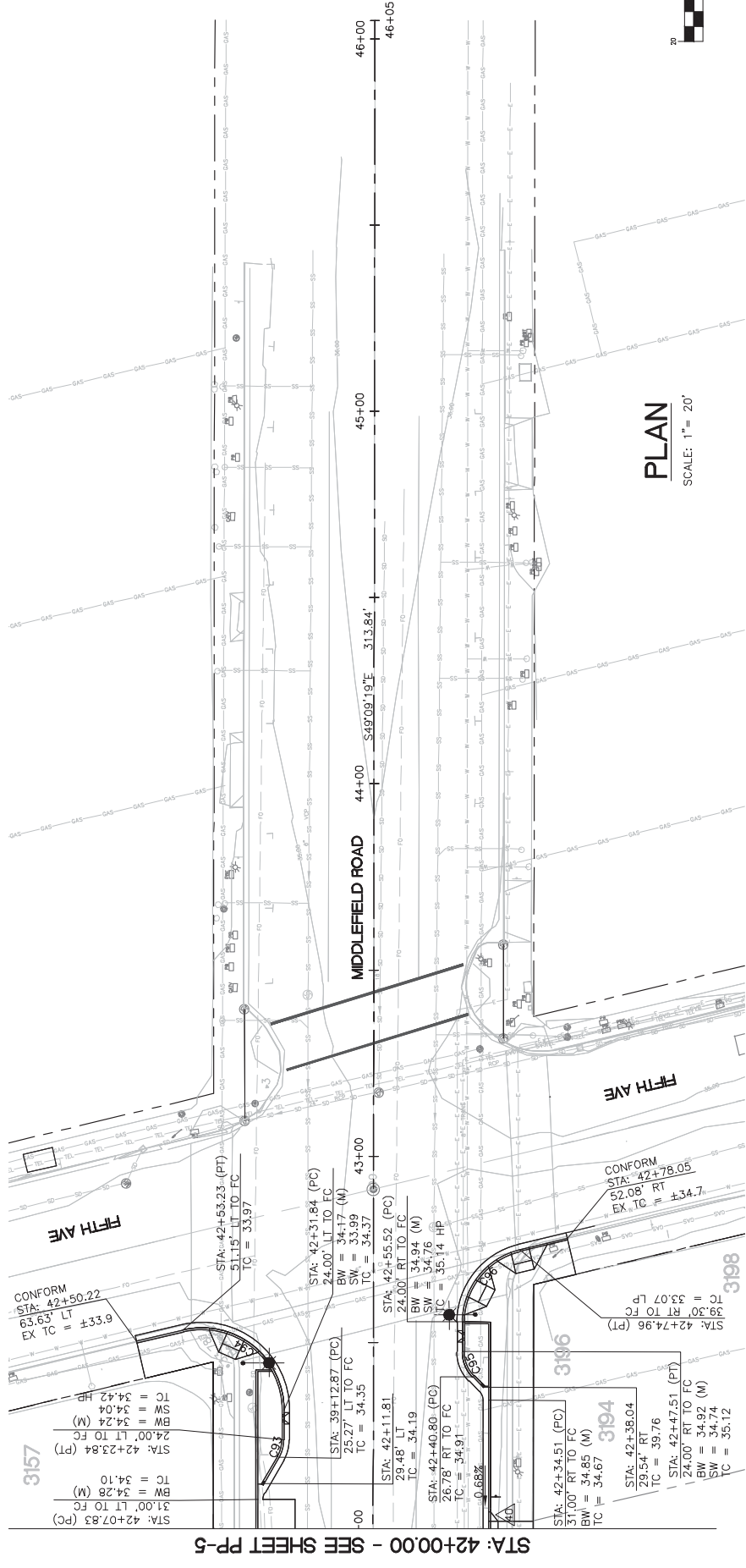
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



Curve Table			
Curve #	Length	Radius	Delta
C93	4.97	9.50	30°00'00"
C94	39.76	22.00	103°32'55"
C95	7.46	9.50	45°00'00"
C96	26.67	20.00	76°24'18"

NOTES:

- SEE SHEETS MD-1 AND MD-2 FOR CONSTRUCTION DETAILS.



DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: EA	PLAN AND PROFILE	FILE NO: 1/XXXX
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
REVISION	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		PP-6
0 1 2 3 4		SHEET X OF X

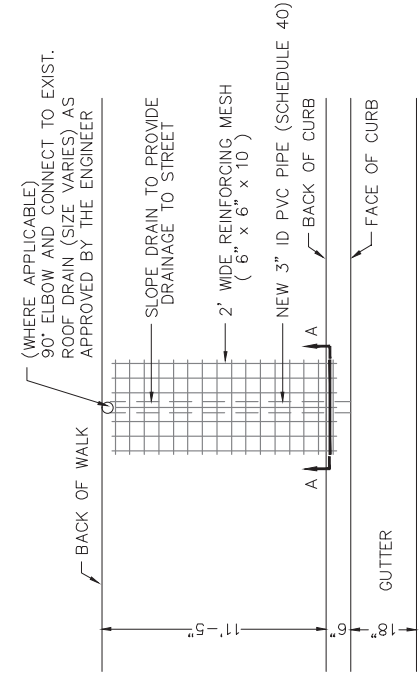
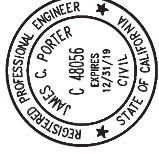
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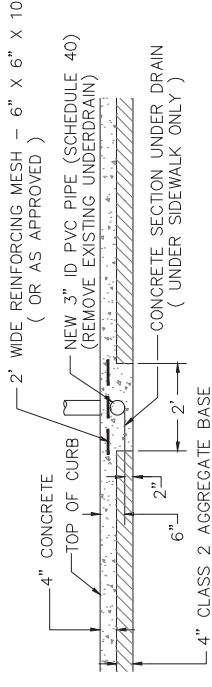
APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



PLAN

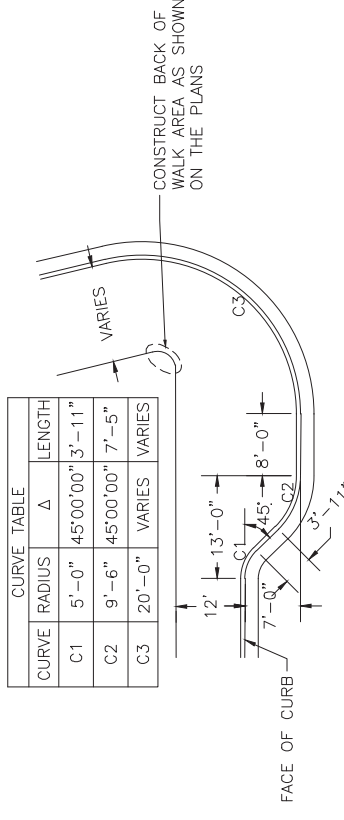
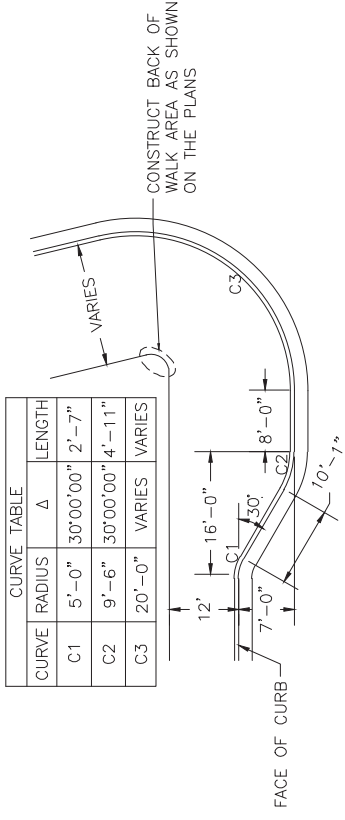


SECTION A-A

NOTE: UNDERDRAIN SHALL BE CONNECTED TO EXISTING ROOFDRAIN OR UNDERDRAIN

5 SIDEWALK UNDERDRAIN

MD-1 NOT TO SCALE

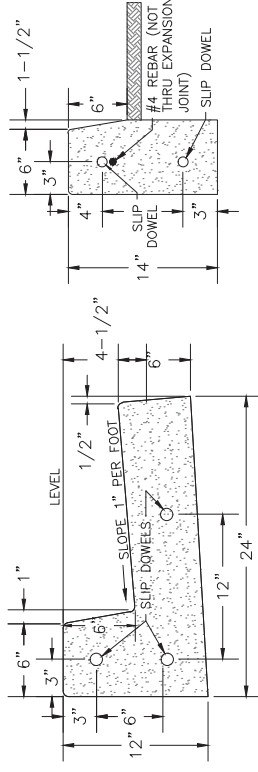


3 GENERAL BULB OUT LAYOUTS

MD-1 NOT TO SCALE

NOTES:

1. SEE PLANS FOR INCLUDED ANGLE AND LENGTH OF C3 CURVE.
2. CURVE DIMENSIONS REFERENCE THE FACE OF CURB



A1-6 CURB

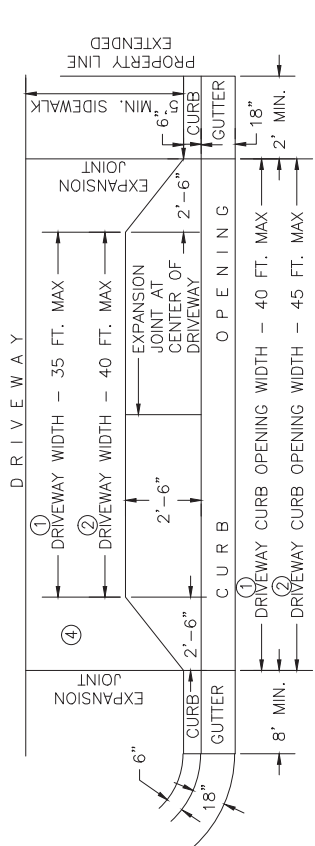
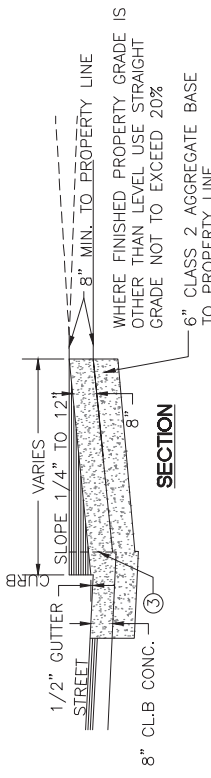
CURB AND GUTTER

4 CURB AND GUTTER TYPICAL SECTIONS

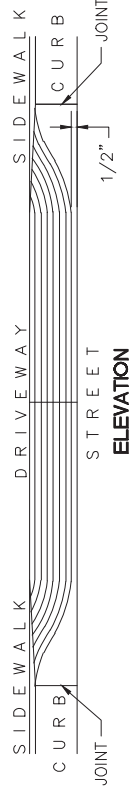
MD-1 NOT TO SCALE

NOTES:

1. ALL CONCRETE TO BE CLASS B (CLASS 3) CONCRETE.
2. MINIMUM SIDEWALK THICKNESS = 4" PCC.
3. PLACE 1/2" DIAMETER X 18" LONG DOWELS AT EXPANSION JOINTS AS SHOWN
4. PLACE 1/2" THICK EXPANSION JOINTS FULL WIDTH 20' ON CENTER
5. CONSTRUCT MONOLITHIC CURB, GUTTER AND SIDEWALK UNLESS OTHERWISE SPECIFICALLY AUTHORIZED BY THE DIRECTOR OF PUBLIC WORKS
6. SUB-BASE MATERIALS WITHIN 30" OF SUBGRADE SHALL BE COMPACTED TO 95%



PLAN



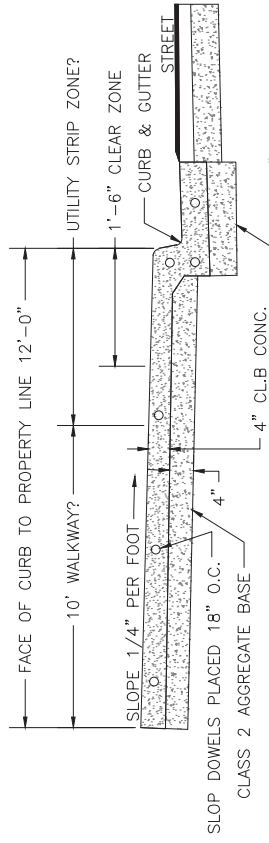
ELEVATION

1 STANDARD DRIVEWAYS

MD-1 NOT TO SCALE

NOTES:

1. SPEED LIMIT OF 35 MPH OR LESS ALONG FRONTAGE STREET
2. SPEED LIMIT OF 40 MPH OR LESS ALONG FRONTAGE STREET
3. CONSTRUCT MONOLITHIC CURB, GUTTER, DRIVEWAY AND APRON
4. USE NO. 4 REINFORCING BAR DOWELS AS SHOWN ON STANDARD CURB, GUTTER AND SIDEWALK DETAIL
5. FOR MORE THAN ONE DRIVEWAY
A. 23 FT. OR MULTIPLES OF 23 FT. BETWEEN CURB OPENINGS
B. TOTAL DRIVEWAY WIDTH FRONTAGE 100 FT. OR LESS
60% OF FRONTAGE MORE THAN 100 FT.
6. EXCEPTION ONE BUSINESS WITH DRIVEWAY WIDTH OF 55 FEET



MIN. 6" CLASS 2 AGGREGATE BASE

2 URBAN CURB, GUTTER, AND SIDEWALK

MD-1 NOT TO SCALE

NOTES:

- OBSTRUCTIONS SUCH AS POLES, HYDRANTS, STREET SIGNS, UTILITY BOXES, STREET LIGHTS, ETC. SHALL BE LOCATED BEHIND THE SIDEWALK, UNLESS OTHERWISE SPECIFICALLY AUTHORIZED BY THE DIRECTOR OF PUBLIC WORKS. A CLEAR ZONE ALONG THE CURB AND SIDEWALK 18" IN WIDTH (MEASURED FROM THE FACE OF CURB) SHALL BE KEPT CLEAR AND OPEN FROM ALL OBSTRUCTIONS. IN ADDITION, AN AREA 3' IN WIDTH ALONG THE SIDEWALK, EXCLUSIVE OF THE CURB WIDTH, SHALL BE KEPT CLEAR AND OPEN FROM ALL OBSTRUCTIONS IN COMPLIANCE WITH THE STATE BUILDING CODE (PART 2, TITLE 24, C.A.C.).

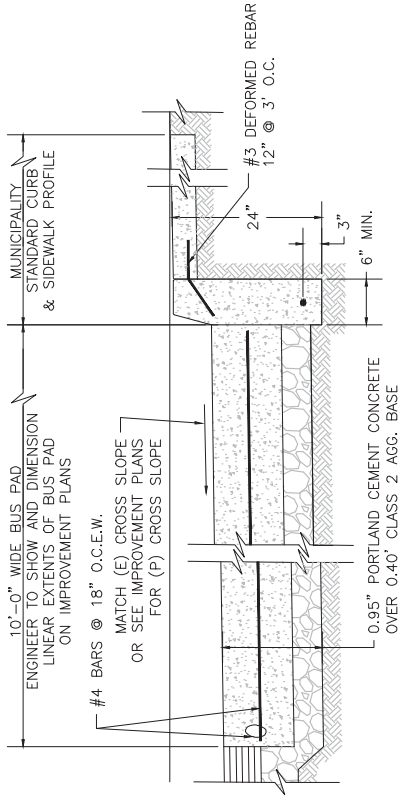
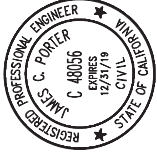


DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: EA	MISCELLANEOUS DETAIL	FILE NO: 1/XXXX
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
DATE	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES	0 1 2 3 4	MD-1 SHEET X OF X

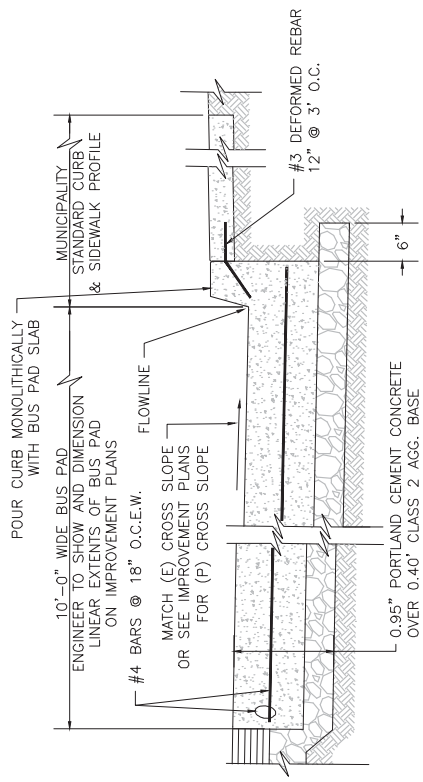
APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



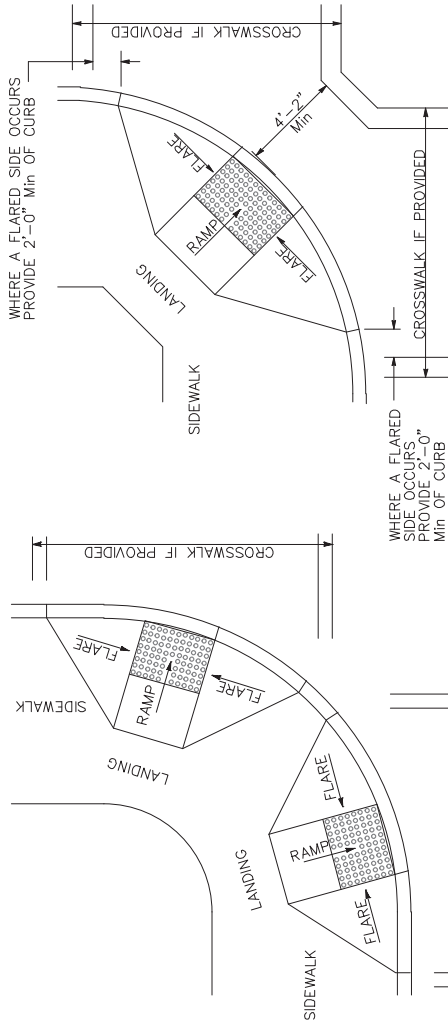
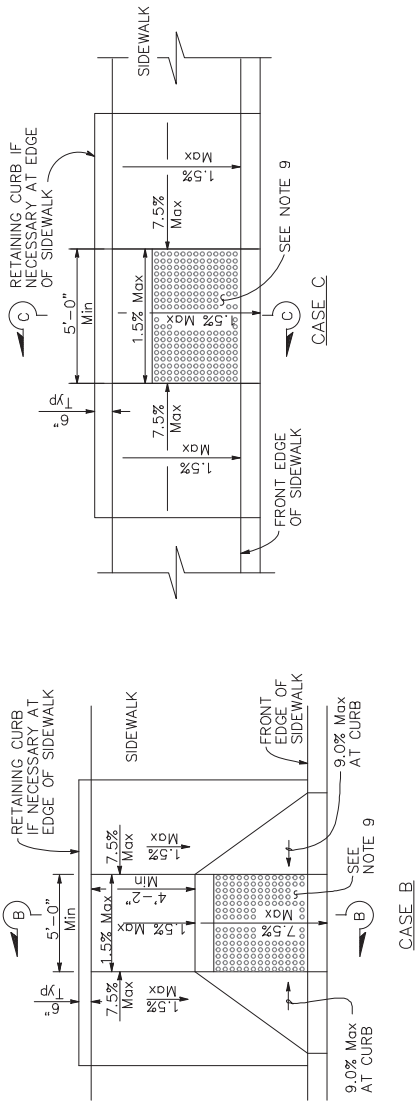
VERTICAL CURB



CURB AND GUTTER

2 STANDARD BUS STOP PAD SECTION

NOT TO SCALE

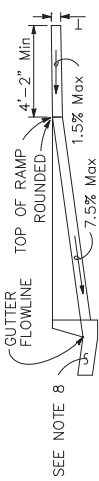
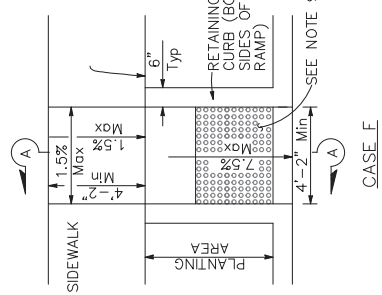
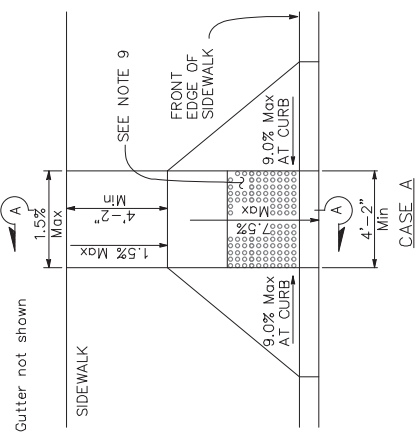


TYPICAL ONE-RAMP CORNER INSTALLATION

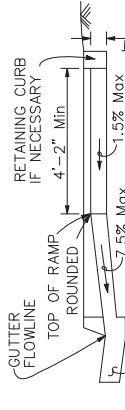
TYPICAL TWO-RAMP CORNER INSTALLATION

NOTES:

- 1. AS SITE CONDITIONS DICTATE, CASE A THROUGH CASE G CURB RAMPS MAY BE USED FOR CORNER INSTALLATIONS SIMILAR TO THOSE SHOWN IN DETAIL A AND DETAIL B. THE CASE OF CURB RAMPS USED IN DETAIL A DO NOT HAVE TO BE THE SAME. CASE A THROUGH CASE G CURB RAMPS ALSO MAY BE USED AT MID BLOCK LOCATIONS, AS SITE CONDITIONS DICTATE.
2. IF DISTANCE FROM CURB TO BACK OF SIDEWALK IS TOO SHORT TO ACCOMMODATE RAMP AND 4'-2" PLATFORM (LANDING) AS SHOWN IN CASE A, THE SIDEWALK MAY BE DEPRESSED LONGITUDINALLY AS IN CASE B, OR C OR MAY BE WIDENED AS IN CASE D.
3. WHEN RAMP IS LOCATED IN CENTER OF CURB RETURN, CROSSWALK CONFIGURATION MUST BE SIMILAR TO THAT SHOWN FOR DETAIL B.
4. AS SITE CONDITIONS DICTATE, THE RETAINING CURB SIDE AND THE FLARED SIDE OF THE CASE G RAMP SHALL BE CONSTRUCTED IN REVERSED POSITION.
5. IF LOCATED ON A CURVE, THE SIDES OF THE RAMP NEED NOT BE PARALLEL, BUT THE MINIMUM WIDTH OF THE RAMP SHALL BE 4'-2".
6. SIDE SLOPE OF RAMP FLARES VARY UNIFORMLY FROM A MAXIMUM OF 9.0% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP, EXCEPT IN CASE C AND CASE F.
7. THE ADJACENT SURFACES AT TRANSITIONS AT CURB RAMPS TO WALKS, GUTTERS, AND STREETS SHALL BE AT THE SAME LEVEL.
8. COUNTER SLOPES OF ADJOINING GUTTERS AND ROAD SURFACES IMMEDIATELY ADJACENT TO AND WITHIN 24 INCHES OF THE CURB RAMP SHALL NOT BE STEEPER THAN 1:20 (5.0%). GUTTER PAN SLOPE SHALL NOT EXCEED 1" OF DEPTH FOR EACH 2'-0" OF WIDTH.
9. CURB RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE THAT EXTENDS THE FULL WIDTH AND 3'-0" DEPTH OF THE RAMP. A 4'-0" WIDE DETECTABLE WARNING SURFACE MAY BE USED ON A 4'-2" WIDE CURB RAMP. DETECTABLE WARNING SURFACES SHALL CONFORM TO THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS.
10. SIDEWALK AND RAMP THICKNESS, "T", SHALL BE 3" MINIMUM.
11. UTILITY PULL BOXES, MANHOLES, VAULTS AND ALL OTHER UTILITY FACILITIES WITHIN THE BOUNDARIES OF THE CURB RAMP WILL BE RELOCATED OR ADJUSTED TO GRADE BY THE OWNER PRIOR TO, OR IN CONJUNCTION WITH, CURB RAMP CONSTRUCTION.
12. DETECTABLE WARNING SURFACE MAY HAVE TO BE CUT TO ALLOW REMOVAL OF UTILITY COVERS WHILE MAINTAINING FULL DETECTABLE WARNING WIDTH AND DEPTH.

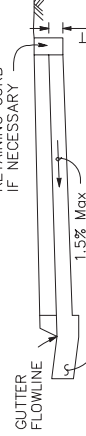


SECTION A-A



SECTION B-B

Depress entire sidewalk as required

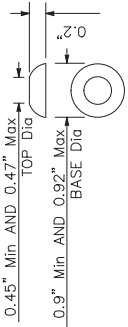


SECTION C-C



RAISED TRUNCATED DOME PATTERN (IN-LINE) DETECTABLE WARNING SURFACE

See Note 9



RAISED TRUNCATED DOME

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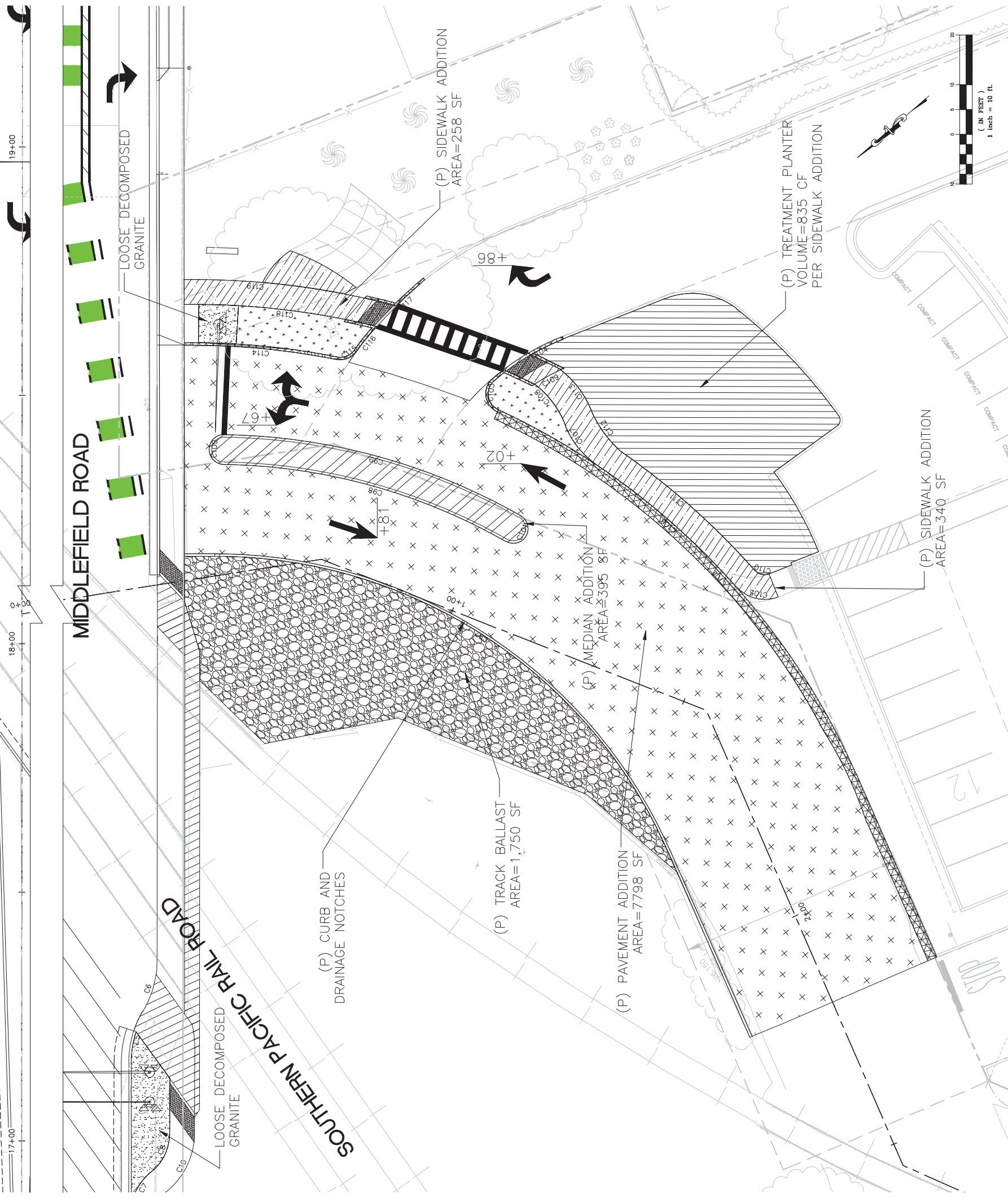


Table with project information: COUNTY OF SAN MATEO, MIDDLEFIELD ROAD IMPROVEMENT PROJECT, MISCELLANEOUS DETAIL, DESIGNED BY: EA, CHECKED BY: TS, DRAWN BY: EA, DATE, REVISION, SAN MATEO COUNTY, 555 COUNTY CENTER, 5TH FLOOR, REDWOOD CITY, CALIFORNIA 94063, SCALE: AS SHOWN, DATE: 04-06-2018, FILE NO: 1/XXXX, COUNTY OF SAN MATEO PUBLIC WORKS, JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS, SAN MATEO COUNTY, 555 COUNTY CENTER, 5TH FLOOR, REDWOOD CITY, CALIFORNIA 94063, MD-2, SHEET X OF X.

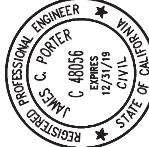
1 CURB RAMP DETAILS

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APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2019



LEGEND:

- (P) SIDEWALK
- (P) CURB AND GUTTER
- (P) TREATMENT PLANTER EXTENT
- (P) PAVEMENT EXTENT
- (P) MEDIAN
- (P) LANDSCAPE
- (P) LOOSE DECOMPOSED GRANITE
- (P) TRACK BALLAST ROCK

Curve #	Length	Radius	Delta
C97	115.71	100.00	66°17'40"
C98	59.40	118.00	28°50'40"
C99	62.52	124.00	28°53'22"
C100	9.42	3.00	180°00'00"
C101	9.42	3.00	180°00'00"
C102	104.70	145.00	41°22'17"
C103	7.93	4.00	113°31'17"
C104	16.44	47.80	19°42'45"
C105	9.10	7.73	67°27'05"
C106	37.72	145.50	14°51'14"
C107	10.05	17.17	33°31'40"
C108	10.52	18.98	31°45'57"
C109	6.05	42.27	8°11'39"
C110	3.05	2.74	63°52'58"
C111	36.15	150.50	13°45'46"
C112	10.10	23.14	25°01'15"
C113	10.52	18.98	31°45'57"
C114	28.94	145.00	11°26'08"
C115	4.53	4.00	64°52'48"
C116	5.73	77.69	4°13'30"



DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	REDWOOD JUNCTION RESTORATION	FILE NO: 1/XXXX
DATE	SAN MATEO COUNTY	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	PG-1
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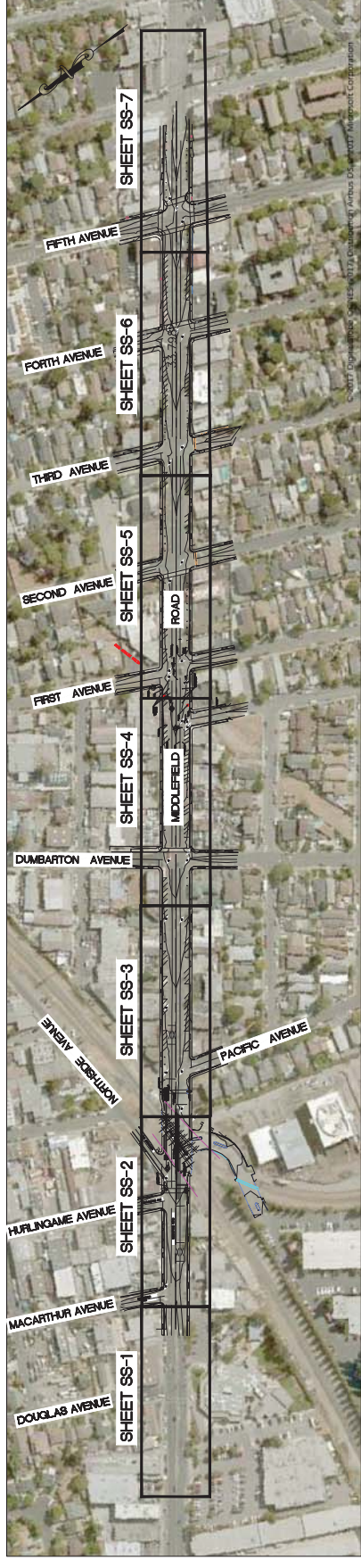
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FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETSCAPE\000_CAD\SHEETS\REDWOOD JUNCTION\REDWOOD JUNCTION.DWG (Pg-1)

SAN MATEO COUNTY

MIDDLEFIELD ROAD IMPROVEMENT PROJECT SANITARY SEWER UTILITY LAYOUT

PER SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS REVISED STANDARD SPECIAL PROVISIONS, MAY 28, 2014 AND TO BE SUPPLEMENTED BY STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS DATED MAY 2006 AND ADOPTED BY SAN MATEO COUNTY, NOVEMBER 14, 2006, BY RESOLUTION NO. 068389

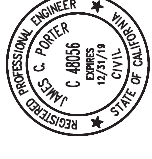


PLAN
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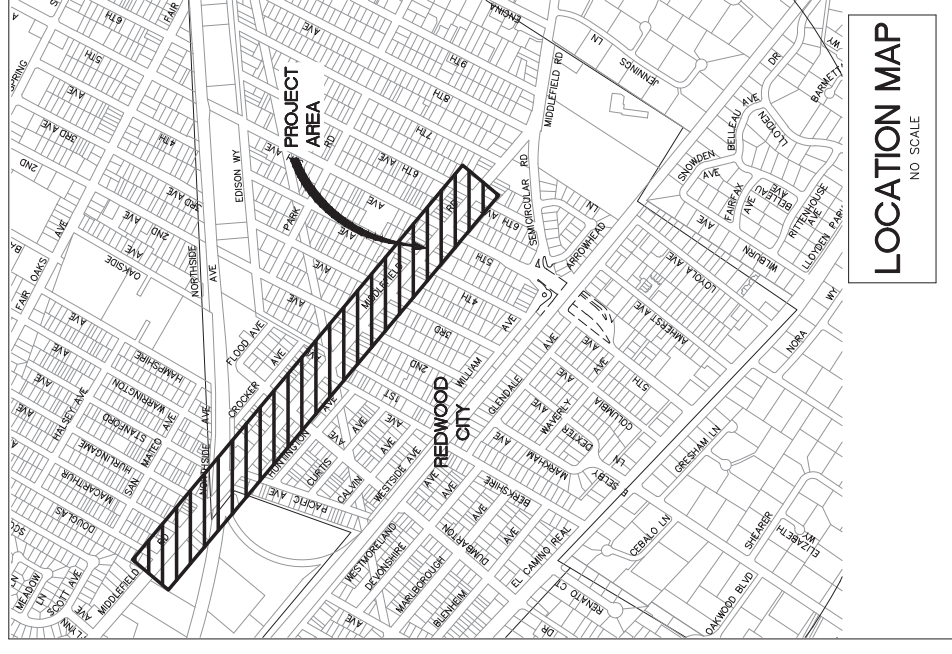
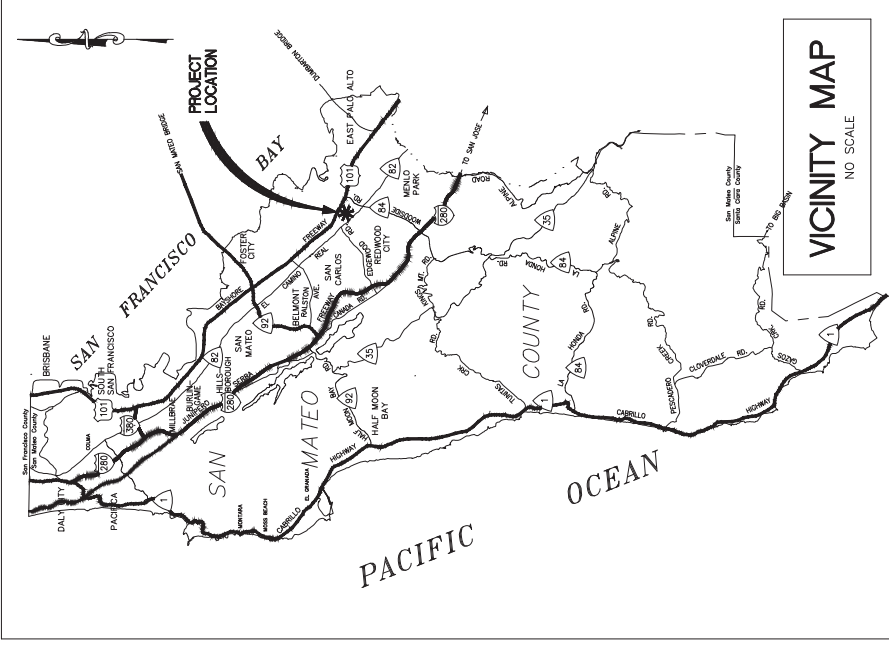
SHEET INDEX:

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SSG-2	ABBREVIATIONS GENERAL NOTES AND LEGEND
SSG-3	SANITARY SEWER NOTES
SS-1	SANITARY SEWER LAYOUT (PLAN AND PROFILE 0+00 TO 13+50)
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SS-7	SANITARY SEWER LAYOUT (PLAN AND PROFILE 42+00 TO 46+20)
SS-8	SANITARY SEWER UTILITY DETAILS 1
SS-9	SANITARY SEWER UTILITY DETAILS 2
SS-10	SANITARY SEWER UPRR CROSSING PLAN
SS-11	SANITARY SEWER UPRR SECTIONS AND DETAILS
SS-12	HETCH HETCHY R.O.W. PLAN
SS-13	HETCH HETCHY R.O.W. SECTIONS AND DETAILS

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DATE: _____
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



APPROVED DATE:		STAMP
XXXXX XXXXXX, CITY ENGINEER		
CITY OF ANY CITY		
R.C.E. # 00000 / EXPIRES 00-00-0000		

APPROVED DATE:		STAMP
ELMER T. FUDD, ENGINEERING CONSULTANT		
JOHN SMITH & CO. INC.		
R.C.E. # 00000 / EXPIRES 00-00-0000		

DESIGNED BY: EA	COUNTY OF SAN MATEO
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT
DRAWN BY: EM	COVER SHEET
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR
SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063

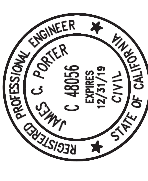


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SHEET X OF X

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ABBREVIATIONS:

APPROX	APPROXIMATE
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS INTERNATIONAL
AVE	AVENUE
BDPL	BAY DIVISION PIPELINE
BTW	BETWEEN
DIA	DIAMETER
DI	DUCTILE IRON
DIM	DIMENSIONS
DIP	DUCTILE IRON PIPE
DR	DIMENSION RATIO
(E)	EXISTING
EG	EXISTING GROUND
FT	FOOT
FO	FIBER OPTICS
HH, H.H.	HETCH HETCHY
LB	POUND
ID	INSIDE DIAMETER
INV	INVERT
JT	JOINT TRENCH
MACP	MANHOLE ASSESSMENT AND CERTIFICATION PROGRAM
MH	MANHOLE
(N)	NEW
NE	NORTHEAST
NW	NORTHWEST
OD	OUTSIDE DIAMETER
OH	OVERHEAD WIRE
PACP	PIPELINE ASSESSMENT AND CERTIFICATION PROGRAM
PVC	POLYVINYL CHLORIDE
PG&E	PACIFIC GAS AND ELECTIC
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
ROW, R.O.W.	RIGHT OF WAY
SD	STORM DRAIN
SE	SOUTHEAST
SDDI	STORM DRAIN DRAINAGE INLET
SDR	STANDARD DIMENSION RATIO
SFPUC	SAN FRANCISCO PUBLIC UTILITIES COMMISSION
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
SW	SOUTHWEST
T	PIPE WALL THICKNESS
UP,UPRR	UNION PACIFIC RAILROAD
VCP	VITRIFIED CLAY PIPE
W	WATER
WL	WATER LINE

LEGEND:

(N) SANITARY SEWER AND MANHOLE

	SANITARY SEWER
	STORM DRAIN MANHOLE
	SEWER MANHOLE
	CATCH BASIN
	GAS LINE
	WATER LINE
	ELECTRICAL LINE
	ELECTRICAL OVERHEAD LINE
	COMCAST UNDERGROUND
	TELEPHONE LINE
	FIBER OPTIC
	(E) GROUND PENETRATING RADAR

GENERAL NOTES

- ALL WORK SHALL CONFORM TO THE REQUIREMENTS SHOWN ON THESE DRAWINGS AND SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD DRAWINGS AND SPECIFICATIONS.
- THE UNDERGROUND UTILITIES SHOWN IN PLAN DRAWINGS ARE FOR INFORMATION ONLY. CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL EXISTING UTILITIES. CONTRACTOR SHALL POT-HOLE EXISTING PIPELINES TO VERIFY THE VERTICAL AND HORIZONTAL ALIGNMENT PRIOR TO PERFORMING EARTHWORK ADJACENT TO PIPELINES. CONTACT UNDERGROUND SERVICE ALERT (USA) AT 811 PRIOR TO CONSTRUCTION AND FOLLOW-UP WITH EACH UTILITY PRESENT IN THE AREA TO CONFIRM THAT THE LOCATION OF THEIR INFRASTRUCTURE WAS MARKED.
- THE COUNTY ASSUMES NO RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS OF UTILITY INFORMATION. THE CONTRACTOR SHALL EXERCISE CAUTION WHILE EXCAVATING AND SHALL PROTECT ALL EXISTING SERVICES FROM DAMAGE DUE TO HIS OPERATIONS. SUPPORT EXISTING UTILITIES THAT ARE EXPOSED DUE TO CONSTRUCTION ACTIVITIES.
- UTILITY LATERALS SUCH AS WATER, GAS, ELECTRICAL, TELECOMMUNICATION AND SEWER LATERALS ARE GENERALLY NOT SHOWN. IF THEY ARE DISPLAYED, LOCATIONS ARE APPROXIMATE. CONTRACTOR SHALL LOCATE UTILITY LATERALS IN THE FIELD AND PROTECT THEM.
- THE APPROXIMATE LOCATION OF UNDERGROUND UTILITIES AND STRUCTURES SHOWN ON THESE PLANS IS BASED UPON BEST AVAILABLE PUBLIC RECORDS. THIS INFORMATION MAY BE INCOMPLETE. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE POSITION OF AND PROVIDE PROTECTION FOR ALL EXISTING UTILITIES AND STRUCTURES.
- CONTRACTOR SHALL POSSESS A CLASS "A" GENERAL ENGINEERING CONTRACTOR LICENSE.

CONSTRUCTION NOTES

- CONSTRUCTION HOURS (INCLUDES ANY AND ALL DELIVERIES): MONDAY — FRIDAY: 8:00 AM TO 5:00 PM.
- ALL TRAFFIC CONTROL SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONTRACTOR'S SPECIFIC TRAFFIC CONTROL PLAN AS APPROVED BY THE COUNTY.
- CONTRACTOR SHALL AT ALL TIMES COMPLY WITH THE SAFETY RULES AND REGULATIONS ESTABLISHED BY CAL-OSHA AND OTHER AGENCIES HAVING JURISDICTION OVER THE WORK.
- THE CONTRACTOR SHALL PROVIDE CONSTRUCTION STAKING FOR THE PROPOSED IMPROVEMENTS.
- CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY.
- SHUTDOWN OF UTILITIES WILL NOT BE ALLOWED. IF EMERGENCY SHUTDOWN OF UTILITIES IS NECESSARY, THEN SHUTDOWN SHALL BE APPROVED IN WRITING BY SAN MATEO COUNTY OR THE RESPECTIVE UTILITY COMPANY.
- MANHOLE RIM ELEVATIONS ARE APPROXIMATE ONLY. MANHOLE RIMS SHALL BE ADJUSTED TO MATCH PROPOSED GRADE UNLESS OTHERWISE NOTED ON PLANS.
- CONTRACTOR SHALL POT-HOLE ALL SEWER MAIN CROSSINGS AND ADJUST STORM DRAIN GRADE AS NECESSARY TO MAINTAIN A MINIMUM OF ONE FOOT SEPARATION BETWEEN OUTSIDE OF THE TWO PIPELINES.
- CONTRACTOR SHALL REPAIR, TO THE SATISFACTION OF THE COUNTY AND WITH SAME MATERIAL AS EXISTING, ALL BROKEN SEWER MAINS, WATER LINES, LATERALS, AND OTHER EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
- CONTRACTOR SHALL LOCATE NEW CURB INLETS AT CURB RETURNS SO AS NOT TO OBSTRUCT PROPOSED HANDICAP RAMPS, AND TO MINIMIZE IMPACTS TO EXISTING GAS AND WATER VALVES, AS DIRECTED BY THE ENGINEER. GAS LINES WILL BE RELOCATED BY OTHERS AS NECESSARY TO AVOID CURB INLETS AS DIRECTED BY THE ENGINEER.
- CONTRACTOR WILL BE RESPONSIBLE TO RECONNECT ALL LATERALS TO THE EDGE OF THE PROPERTY LINE.
- CONSTRUCTION WITHIN SFPUC HETCH HETCHY R.O.W. SHALL BE BY OPEN TRENCH CONSTRUCTION METHOD ONLY.

OPEN TRENCH NOTES

- BEFORE SEWER PIPE IS PLACED IN POSITION IN THE TRENCH, THE BOTTOM AND SIDES OF THE TRENCH SHALL BE CAREFULLY PREPARED, THE REQUIRED BEDDING PLACED, AND BRACING AND SHEETING INSTALLED WHERE REQUIRED. THE TRENCH SHALL BE EXCAVATED TO THE DIMENSIONS SHOWN ON THE DRAWINGS. EACH PIPE SHALL BE ACCURATELY PLACED TO THE LINE AND GRADE CALLED FOR ON THE PLANS.
- PIPE LAYING SHALL PROCEED UPGRADE, STARTING AT THE LOWER END OF THE GRADE AND WITH THE BELLS UPHILL.
- TRENCH BOTTOMS FOUND TO BE UNSUITABLE FOR FOUNDATIONS AFTER PIPE LAYING OPERATIONS HAVE STARTED SHALL BE CORRECTED AND BROUGHT TO GRADE WITH APPROVED COMPACTED MATERIALS.
- PIPE TRENCHES SHALL BE KEPT FREE FROM WATER DURING PIPE LAYING, JOINING OR BEFORE SUFFICIENT BACKFILL HAS BEEN PLACED TO PREVENT FLOTATION OF THE PIPE. THE CONTRACTOR MAY USE SUMP PUMPS OR ANY OTHER APPROVED DEVICES TO REMOVE WATER FROM THE TRENCH BOTTOM. THE CONTRACTOR SHALL PROVIDE AMPLE MEANS AND DEVICES TO PROMPTLY REMOVE AND DISPOSE OF ALL WATER FROM ANY SOURCE ENTERING THE TRENCH.
- THE CONTRACTOR SHALL COMPLY WITH ALL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REGULATIONS.
- NO CONNECTION SHALL BE MADE WHERE JOINT SURFACES AND JOINT MATERIALS HAVE BEEN SOILED BY EARTH OR EMBEDMENT IN HANDLING UNTIL SUCH SURFACES ARE THOROUGHLY CLEANED, AS THE WORK PROGRESSES, THE INTERIOR OF ALL PIPES SHALL BE KEPT CLEAN. AFTER EACH LINE OF PIPE HAS BEEN LAID, IT SHALL BE CAREFULLY INSPECTED AND ALL EARTH, TRASH, RAGS, AND OTHER FOREIGN MATTER REMOVED FROM THE INTERIOR.
- BACKFILLING OF TRENCHES SHALL BE STARTED IMMEDIATELY AFTER THE PIPE IS PLACED IN THE TRENCH.
- BACKFILL MATERIAL PLACED UNDER THE HAUNCHES SHALL BE SHOVEL SLICED AND/OR COMPACTED.
- AT END OF EACH DAY THE CONTRACTOR SHALL PLATE THE END OF THE INSTALLED PIPE.

PIPE BURSTING NOTES

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL FLOWS WITHIN THE SYSTEM. HE SHALL BYPASS THE FLOWS AROUND THOSE SECTIONS OF PIPE TO BE REPLACED. CERTAIN INDIVIDUAL SERVICES AND LATERALS WITHIN THE PROJECT AREA MAY REQUIRE BYPASSING DURING THE PIPE BURSTING OPERATIONS AS DETERMINED BY THE ENGINEER.
- AT THE END OF EACH WORKING DAY, A TEMPORARY TIE-IN SHALL BE MADE BETWEEN THE REPLACED SECTION OF PIPE AND THE EXISTING SYSTEM. THE BYPASS WILL EITHER BE REMOVED OR THE PUMPS WILL BE MANNED ON A 24-HOUR BASIS.
- UNDER NO CIRCUMSTANCES WILL THE DUMPING OF RAW SEWAGE ON PRIVATE PROPERTY, IN PUBLIC STREETS AND STORM DRAIN SYSTEMS OR ANY LOCATION OTHER THAN AN APPROVED SANITARY SEWER MAIN, BE ALLOWED.
- THE CONTRACTOR SHALL PROVIDE AT LEAST ONE (1) OPERABLE BACKUP PUMP IN CASE OF FAILURE OF THE PRIMARY PUMP. THE BACKUP PUMP SHALL BE ONSITE AND AVAILABLE PRIOR TO THE START OF ANY SEWAGE BYPASSING OPERATIONS.
- THE METHOD OF PIPE BURSTING SHALL BE LIMITED TO HYDRAULICALLY PULLING A CONE OR HYDRAULICALLY POWERED DEVICE OR TOOL COMMONLY KNOWN AS A "MOLE" THROUGH THE EXISTING SEWER PIPES THAT ARE PROPOSED FOR REPLACEMENT.
- IN CONSIDERING LOCATIONS FOR ACCESS PITS, THE CONTRACTOR SHALL CONSIDER THE SIZE OF THE SEWER, ACCESS TO THE WORK AREA, LOCATIONS OF OBSTRUCTIONS AND SERVICES, PULLING DISTANCES, TRAFFIC CONDITIONS, AND LOCATIONS OF UTILITIES AND SEWER LATERALS. WHEN POSSIBLE, INTERMEDIATE ACCESS EXCAVATIONS CAN COINCIDE WITH BUILDING SERVICE CONNECTION EXCAVATIONS OR CRITICAL OBSTRUCTIONS IN THE SEWER. THE LOCATIONS OF THE EXCAVATION POINTS SHOULD BE SUCH AS TO MINIMIZE DISRUPTION.
- UPON COMPLETION OF ALL WORK, CONTRACTOR SHALL REMOVE ALL SURPLUS MATERIALS AND RUBBISH, SHALL REPAIR ALL DAMAGES CAUSED BY HIS WORKERS AND SHALL LEAVE THE PREMISES IN A CLEAN AND ORDERLY CONDITION.

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DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 07-19-2017
DRAWN BY: EM	ABBREVIATIONS GENERAL NOTES & LEGEND	FILE NO.: 1/XXXX
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
DATE	0	1
REVISION	2	3
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FOR REDUCED PLANS
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SSG-2
SHEET X OF X

**SAN MATEO COUNTY SEWER AND SANITATION DISTRICTS
STANDARD SPECIFICATIONS**

GENERAL NOTES

1. ALL REFERENCES TO "DISTRICT" IN THESE GENERAL NOTES SHALL MEAN THE FAIR OAKS SEWER MAINTENANCE DISTRICT. THE APPROVAL OF THESE PLANS BY THE DISTRICT SHALL BE INTERPRETED TO MEAN THAT THE SANITARY SEWER DESIGN SHOWN ON THESE PLANS MEETS THE DISTRICT'S STANDARDS. THE DISTRICT'S APPROVAL IN NO WAY GUARANTEES ANY OTHER ASPECT OF THIS PLAN OR ITS ACCURACY RELATIVE TO ACTUAL FIELD CONDITIONS.
2. THE CONTRACTOR SHALL CONTACT THE DISTRICT AT 690-363-4100 TWO (2) WORKING DAYS IN ADVANCE OF BEGINNING ANY SANITARY SEWER WORK. THE CONTRACTOR SHALL THEREAFTER KEEP THE INSPECTOR FOR THE DISTRICT INFORMED OF HIS SCHEDULE FOR SANITARY SEWER WORK.
3. ALL SANITARY SEWER WORK CONSTRUCTED WITHOUT INSPECTION BY THE DISTRICT SHALL BE REMOVED AND RECONSTRUCTED WITH INSPECTION.
4. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FORTY-EIGHT (48) HOURS IN ADVANCE OF BEGINNING ANY WORK.
5. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES BEFORE BEGINNING ANY EXCAVATING.
6. THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED BY THE COUNTY OR CITY BEFORE BEGINNING ANY SANITARY SEWER WORK.
7. UPON THE COMPLETION OF CONSTRUCTION A COMPLETE SET OF REPRODUCIBLE "AS-BUILT" PLANS SHALL BE PROVIDED TO THE DISTRICT.
8. SANITARY SEWER SERVICE SHALL BE MAINTAINED AT ALL TIMES. THE CONTRACTOR SHALL USE WHATEVER MEANS ARE NECESSARY (E.G. PUMPS, ETC.) TO MAINTAIN THIS SERVICE DURING CONSTRUCTION.

PIPE AND FITTINGS

POLYVINYL CHLORIDE PIPE (PVC)

1. ALL PIPE AND FITTINGS SHALL CONFORM TO ASTM SPECIFICATIONS D3034, SDR 35, SEE TABLE 1.
2. ALL JOINTS SHALL BE A BELL AND SPIGOT ASSEMBLY WITH ELASTOMERIC SEALING GASKETS. SEALING GASKETS SHALL MEET THE REQUIREMENTS OF ASTM SPECIFICATION D1889. SOLVENT CEMENT JOINTS ARE NOT PERMITTED.
3. ALL PIPE ENTERING OR LEAVING A CONCRETE STRUCTURE SHALL HAVE A RUBBER WATERSTOP GASKET ATTACHED TO IT. THE WATERSTOP GASKET SHALL CONFORM TO THE PIPE MANUFACTURER'S SPECIFICATIONS. THE WATERSTOP GASKET SHALL BE SEATED FIRMLY AROUND THE PIPE EXTERIOR AND BE CAST INTO THE CONCRETE STRUCTURE.
4. ALL PIPE JOINTS SHALL BE MADE USING MANUFACTURED PVC COUPLINGS. BAND TYPE COMPRESSION COUPLINGS ARE NOT PERMITTED.

HIGH-DENSITY POLYETHYLENE PIPE (HDPE)

1. HIGH DENSITY POLYETHYLENE (HDPE) SEWER PIPE AND FITTINGS SHALL BE DRISCOPEX 4100, SDR 17 OR APPROVED EQUAL, CONSISTING OF VIRGIN HIGH MOLECULAR WEIGHT POLYETHYLENE SPECIFIED UNDER ASTM D3350 AS HAVING A CELL CLASSIFICATION OF PE345434C AND SOFT WHITE OR GRAY INTERIOR SURFACE (BLACK COLOR WILL NOT BE ALLOWED). PIPE SHALL HAVE A MANNING "N" FACTOR OF 0.009 FOR GRAVITY FLOW. MANHOLE ADAPTER RINGS SHALL CONFORM TO RECOMMENDATIONS OF MANUFACTURER OF THE HDPE PIPE SUPPLIED.

TESTING REQUIREMENTS

1. ALL REFERENCES TO "DISTRICT" IN THESE TESTING REQUIREMENTS SHALL MEAN THE FAIR OAKS SEWER MAINTENANCE DISTRICT.
2. ALL REQUIRED CLEANING AND TESTING OF SANITARY SEWER MAINS AND LATERALS SHALL BE PERFORMED IN THE PRESENCE OF A REPRESENTATIVE OF THE DISTRICT.
3. ALL SANITARY SEWER MAINS BEING CONSTRUCTED SHALL BE CLEANED BY MEANS OF A HIGH SPEED JET RODDER PRIOR TO TESTING. VCP SHALL BE TESTED FOR OBSTRUCTION BY BALL ROLLING.
4. ALL SANITARY SEWER MAINS BEING CONSTRUCTED SHALL PASS A LOW PRESSURE AIR TEST. EACH SECTION OF MAIN SHALL BE TESTED BETWEEN SUCCESSIVE MANHOLES. THE LOW PRESSURE AIR TEST SHALL BE CONDUCTED IN THE FOLLOWING MANNER. A COMPRESSED AIR SUPPLY SHALL BE ATTACHED TO AN AIR FITTING ON THE MAIN AND THE AIR PRESSURE WITHIN THE LINE INCREASED TO FOUR (4) POUNDS PER SQUARE INCH. (PSI). AFTER THE AIR SUPPLY IS SECURELY TURNED OFF OR DISCONNECTED, THERE SHALL BE A TWO (2) MINUTE WAITING PERIOD BEFORE THE ACTUAL TEST PERIOD BEGINS TO ALLOW STABILIZATION OF AIR WITHIN THE MAIN. IN NO CASE SHALL THE AIR PRESSURE WITHIN THE LINE BE LESS THAN 3.5 PSI AT THE BEGINNING OF THE TEST PERIOD. REFER TO THE CHART WHICH FOLLOWS FOR THE LENGTH OF THE TEST PERIOD. THE MINIMUM LENGTH OF TEST IS TWO (2) MINUTES). THE ALLOWABLE AIR PRESSURE LOSS DURING THE TEST PERIOD SHALL BE 1.0 PSI. A WRITTEN RECORD OF THE TEST SHALL BE SUBMITTED TO THE DISTRICT BY THE CONTRACTOR. THE LENGTH OF TEST SHALL FOLLOW TABLE 2.

TABLE 1

NOMINAL PIPE SIZE (INCHES)	AVERAGE INSIDE DIAMETER (INCHES)	BASE INSIDE DIAMETER (INCHES)	7 1/2 DEFLECTION MANDREL
6	5.893	5.742	5.31
8	7.891	7.665	7.09
10	9.864	9.563	8.85

NOTE: BASE INSIDE DIAMETER IS A MINIMUM PIPE INSIDE DIAMETER DERIVED BY SUBTRACTING A STATISTICAL TOLERANCE PACKAGE FROM THE PIPE'S AVERAGE INSIDE DIAMETER AS DEFINED BY ASTM SPECIFICATION D3034-16.

5. A TELEVISION INSPECTION SHALL BE MADE OF ALL SANITARY SEWER MAINS BEING CONSTRUCTED. IMMEDIATELY PRIOR TO TELEVISIONING THE SEWER, AN AMOUNT OF WATER ACCEPTABLE TO THE DISTRICT'S REPRESENTATIVE SHALL BE INTRODUCED INTO THE SEWER MAIN BEING INSPECTED. ALL INSPECTION VIDEO SHALL BE SUBMITTED IN MPEG FILE FORMAT (.MPG) OR EQUIVALENT, AND DELIVERED ALONG WITH A TYPED LOG OF THE INSPECTION TO THE DISTRICT (SAN MATEO COUNTY DEPARTMENT OF PUBLIC WORKS) FOR REVIEW AND ACCEPTANCE. SUBMITTED VIDEO TAPES SHALL INCLUDE A CONTINUOUS ON-SCREEN DISPLAY WHICH CONTAINS, AS A MINIMUM, THE DATE OF THE FILMING, IDENTIFICATION OF THE LINE AND SEGMENT (REACH) OF THE LINE BEING VIEWED, AND A READOUT, IN FEET, SHOWING THE DISTANCE TO THE ENTRY POINT. IF, IN THE OPINION OF THE DISTRICT, THE SUBMITTED VIDEO ARE OF POOR QUALITY, THE DISTRICT MAY REJECT THE VIDEO FILES AND REQUIRE THE VIDEO INSPECTION TO BE REPEATED AND NEW VIDEO FILES SUBMITTED TO THE DISTRICT FOR REVIEW AND ACCEPTANCE. ALL VIDEO TAPES SHALL BECOME THE PROPERTY OF THE DISTRICT.
6. DEFLECTION TESTING OF SEWER MAINS SHOULD FOLLOW PACP/MACP GUIDELINES AND SHALL BE PERFORMED AFTER THE PLACEMENT OF ALL TRENCH BACKFILL. PIPE DEFLECTION SHALL BE TESTED BY PULLING BY HAND A GO/NO-GO MANDREL THROUGH THE INSTALLED SECTIONS OF SEWER MAIN. THE MANDREL USED SHALL HAVE A MINIMUM LENGTH EQUAL TO ITS DIAMETER. THE MANDREL SHALL BE CONSTRUCTED WITH A MINIMUM OF NINE (9) RIBS FABRICATED PARALLEL TO ITS LONGITUDINAL AXIS. BOTH THE DESIGN OF THE MANDREL AND THE FABRICATED MANDREL ITSELF SHALL BE INSPECTED AND APPROVED BY THE DISTRICT WELL IN ADVANCE OF THE DEFLECTION TEST. THE MANDREL DIAMETER SHALL BE 95% OF THE PIPE'S AVERAGE INSIDE DIAMETER AS DEFINED BY ASTM SPECIFICATION 3034, AND AS DETAILED IN TABLE 1.

TABLE 2

NOMINAL PIPE SIZE (INCHES)	LENGTH OF LINE (FEET)	LENGTH OF TEST (MINUTES)
4	ALL	2
6	0-300	2
6	300-370	2 1/2
6	370-GREATER	3
8	0-170	2
8	170-210	2 1/2
8	210-250	3
8	250-290	3 1/2
8	290-AND GREATER	3 3/4
10	0-110	2
10	110-165	3
10	165-215	4
10	215 AND GREATER	4 3/4

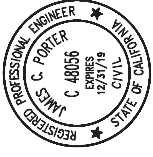
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DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 07-19-2017
DRAWN BY: EM	SANITARY SEWER NOTES	FILE NO: 1/XXXX
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION	0	1 2 3 4
FOR REDUCED PLANS ORIGINAL SCALE 1/8" IN INCHES		SSG-3 SHEET X OF X

APPROVED:

DATE: _____ X

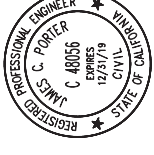


JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

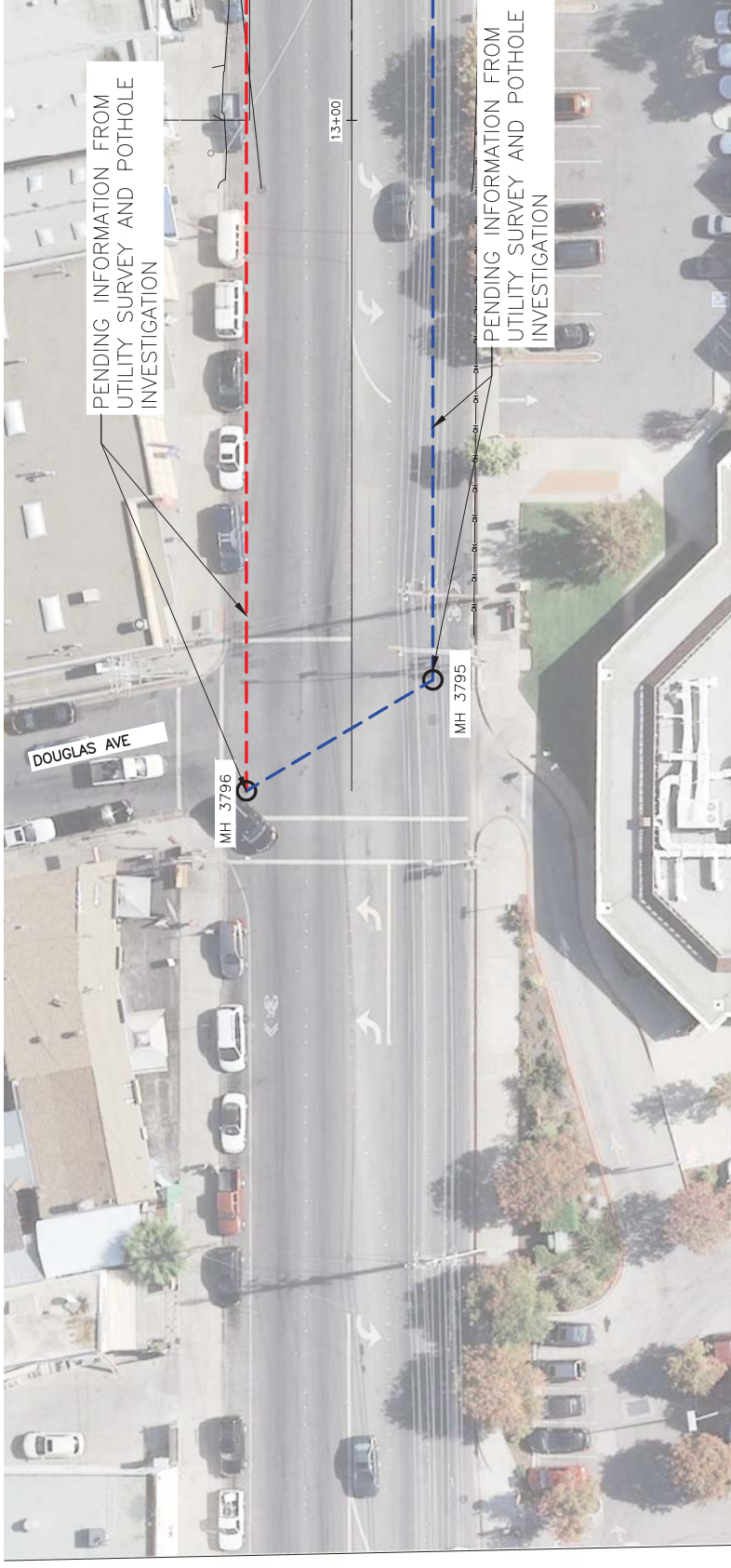
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DATE: X

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



MATCHLINE - SEE SHEET SS-2



PLAN
1"=20'

PENDING SURVEY
INFORMATION TO CREATE
PROFILE

PROGRESS PRINTING
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SANITARY SEWER PROFILE NORTH
1"=20' HORIZ, 1"=4' VERT.

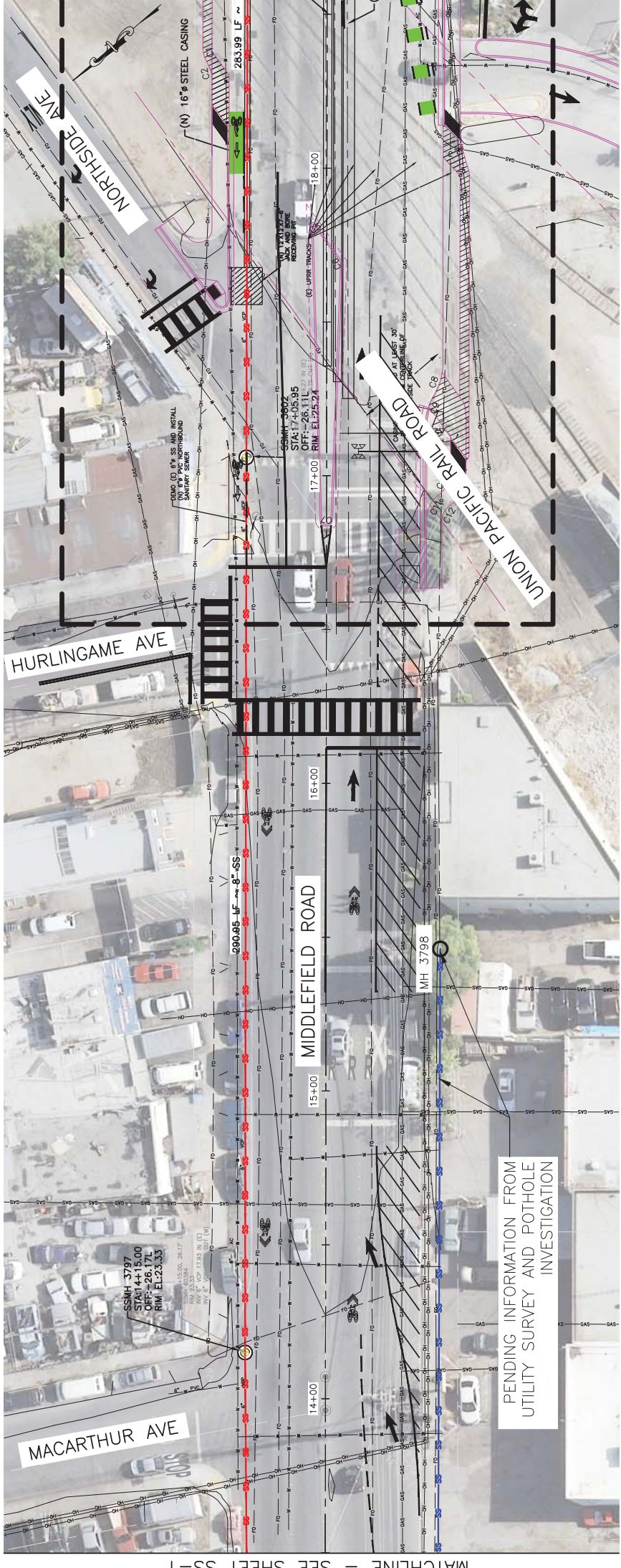


DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 07-19-2017
DRAWN BY: EM	SANITARY SEWER UTILITY LAYOUT	FILE NO: 1/XXXX
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR
REVISION	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

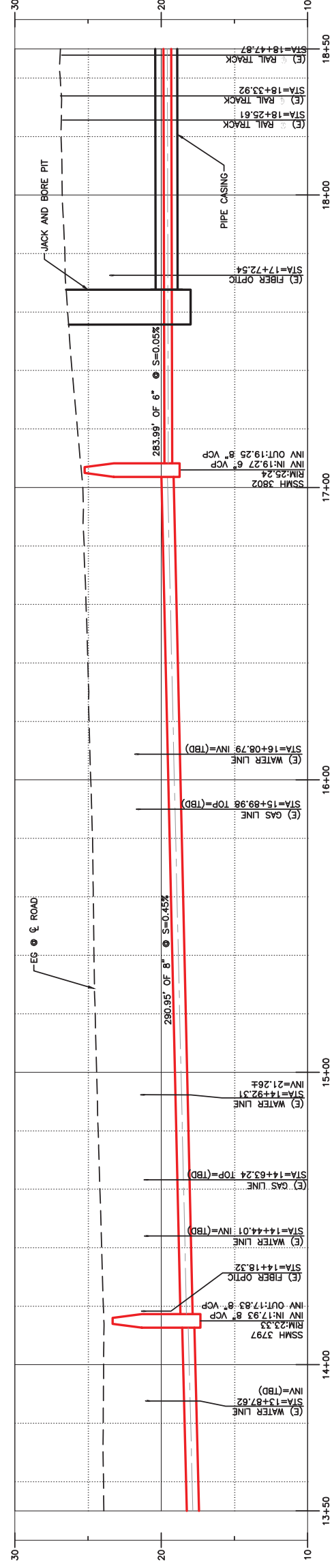


SS-1
SHEET X OF X



PENDING INFORMATION FROM
UTILITY SURVEY AND POTHOLE
INVESTIGATION

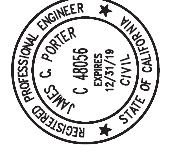
SEE SANITARY SEWER
CROSSING PLAN AND DETAIL
ON SS-10 AND SS-11



PENDING SURVEY
INFORMATION TO CREATE
PROFILE FOR
SOUTHBOUND SS

APPROVED: _____ X
DATE: _____

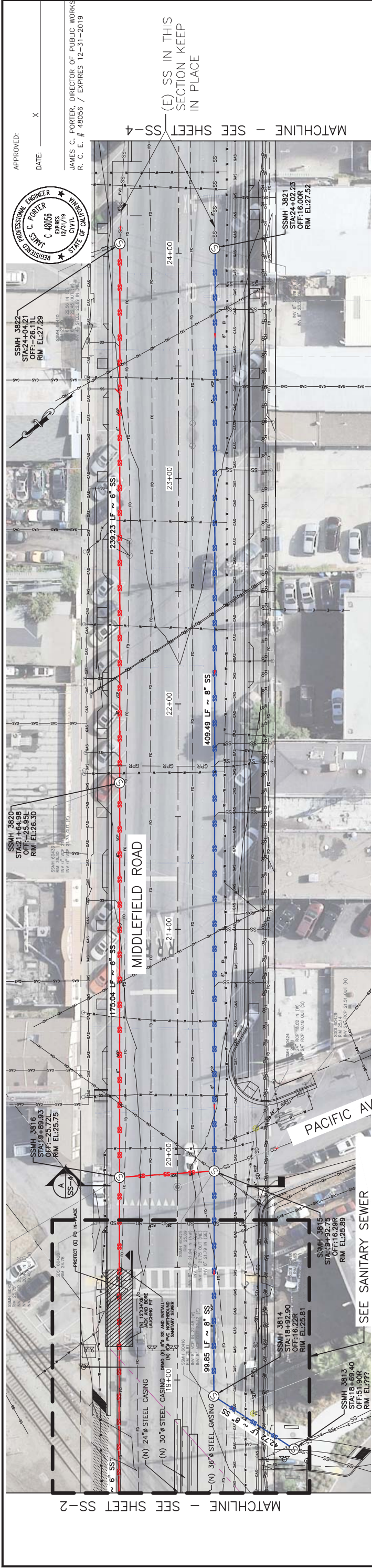
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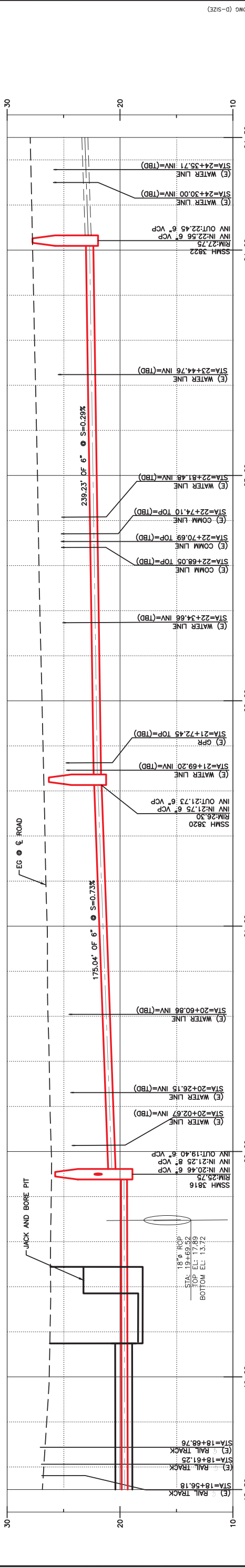


DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 07-19-2017
DRAWN BY: EM	SANITARY SEWER UTILITY LAYOUT	FILE NO: 1/XXXX
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR
REVISION	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063

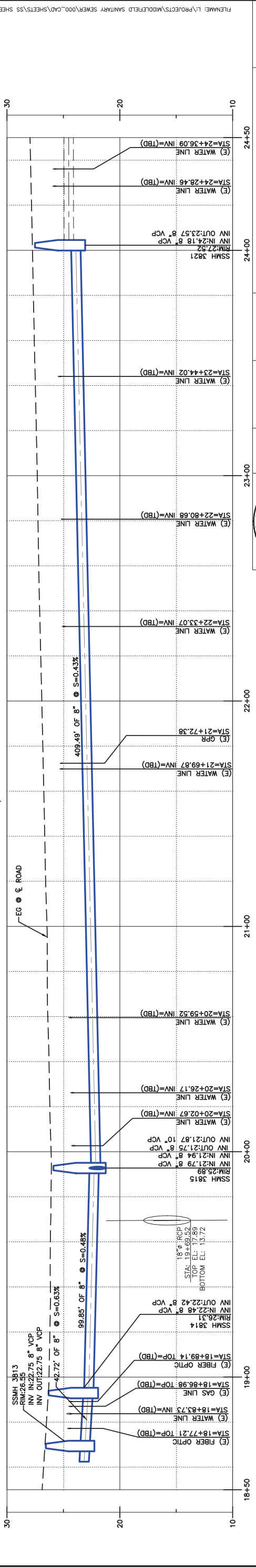


PLAN
1"=20'

SEE SANITARY SEWER CROSSING PLAN AND DETAIL ON SS-10 AND SS-11



SANITARY SEWER PROFILE NORTH
1"=20' HORIZ, 1"=4' VERT.



SANITARY SEWER PROFILE SOUTH
1"=20' HORIZ, 1"=4' VERT.

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APPROVED: _____ X
DATE: _____

REGISTERED PROFESSIONAL ENGINEER
JAMES C. PORTER
C 48056
EXPIRES 12/31/19
CIVIL
UNIVERSITY OF CALIFORNIA

SSMH 3822
STA: 21+64.98
OFF: -25.95L
RIM EL: 26.50

SSMH 3816
STA: 19+89.93
OFF: -25.72L
RIM EL: 25.75

SSMH 3814
STA: 18+92.90
OFF: -16.22R
RIM EL: 25.81

SSMH 3813
STA: 18+69.40
OFF: -16.22R
RIM EL: 25.81

SSMH 3820
STA: 21+64.98
OFF: -25.95L
RIM EL: 26.50

SSMH 3821
STA: 24+02.23
OFF: -16.00R
RIM EL: 27.52

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. # 48056 / EXPIRES 12-31-2019

MIDDLEFIELD ROAD IMPROVEMENT PROJECT
SANITARY SEWER UTILITY LAYOUT

DESIGNED BY: EA
CHECKED BY: TS
DRAWN BY: EM

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

DATE: _____
REVISION: _____

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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SS-3
SHEET X OF X

FILENAME: L:\PROJECTS\MIDDLEFIELD SANITARY SEWER\000.CAD\SHEETS\SS SHEETS\SS-03.DWG (0-SIZE)

COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
SANITARY SEWER UTILITY LAYOUT

DESIGNED BY: EA
CHECKED BY: TS
DRAWN BY: EM

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

DATE: _____
REVISION: _____

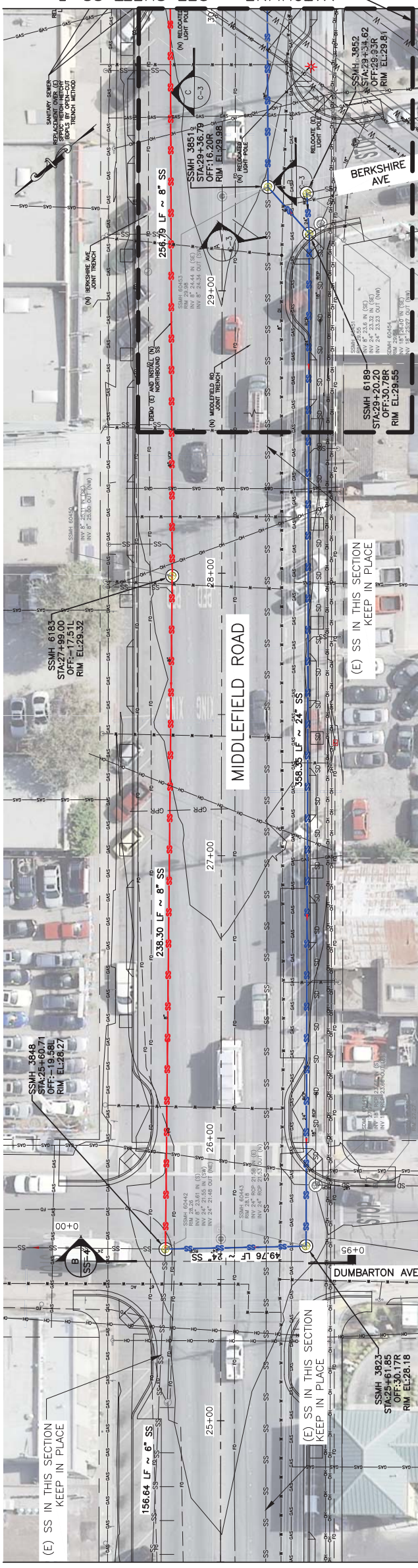
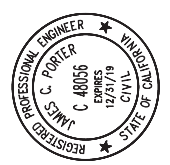
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ORIGINAL SCALE IS IN INCHES

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SS-3
SHEET X OF X

APPROVED: _____ DATE: _____ X

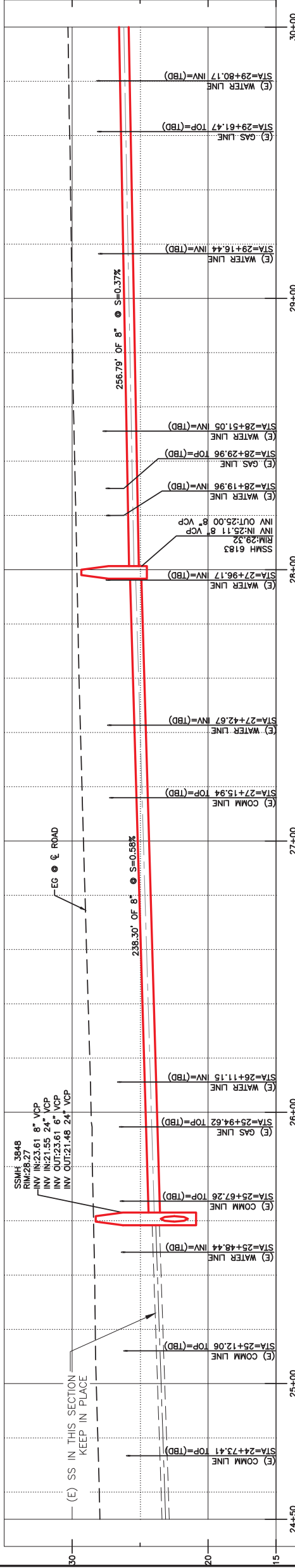
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. # 48056 / EXPIRES 12-31-2019



MATCHLINE - SEE SHEET SS-3

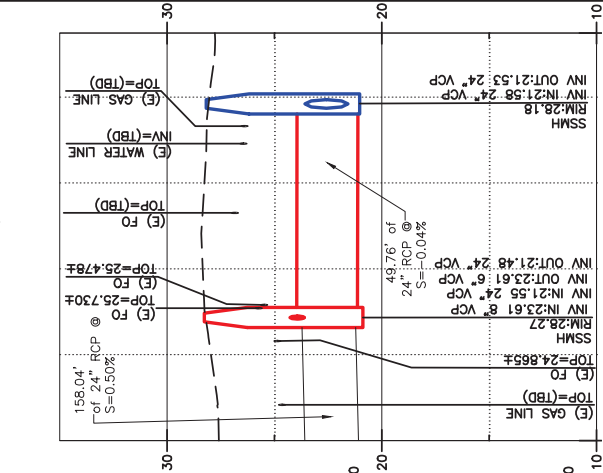
MATCHLINE - SEE SHEET SS-5

PLAN
1"=20'

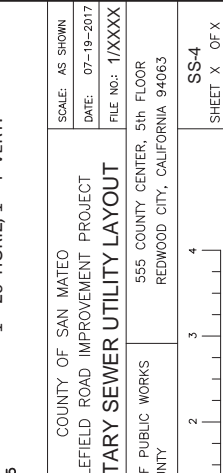


SANITARY SEWER PROFILE NORTH
1"=20' HORIZ, 1"=4' VERT.

SECTION - A
1"=20' HORIZ, 1"=4' VERT.

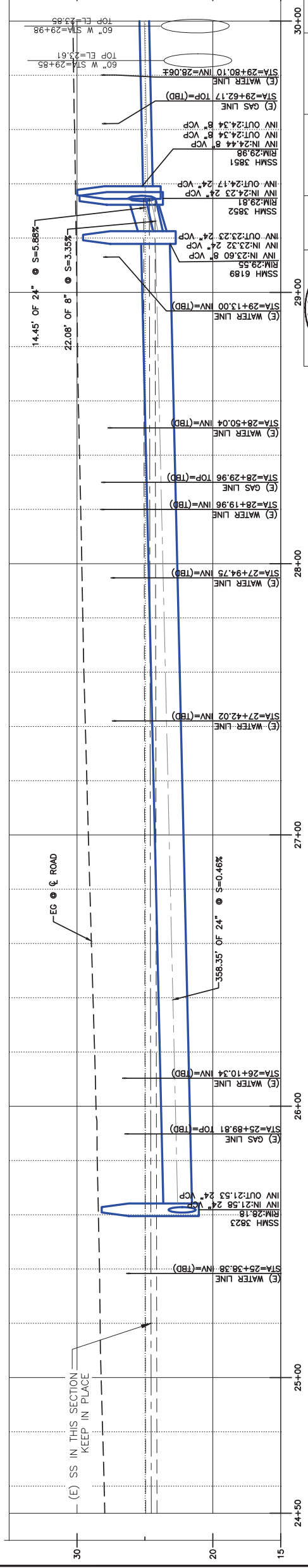


SECTION - B
1"=20' HORIZ, 1"=4' VERT.



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SANITARY SEWER PROFILE SOUTH
1"=20' HORIZ, 1"=4' VERT.



COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
SANITARY SEWER UTILITY LAYOUT

DESIGNED BY: EA
CHECKED BY: TS
DRAWN BY: EM

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY
555 COUNTY CENTER, 5th FLOOR
REDWOOD CITY, CALIFORNIA 94063

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REVISION: _____

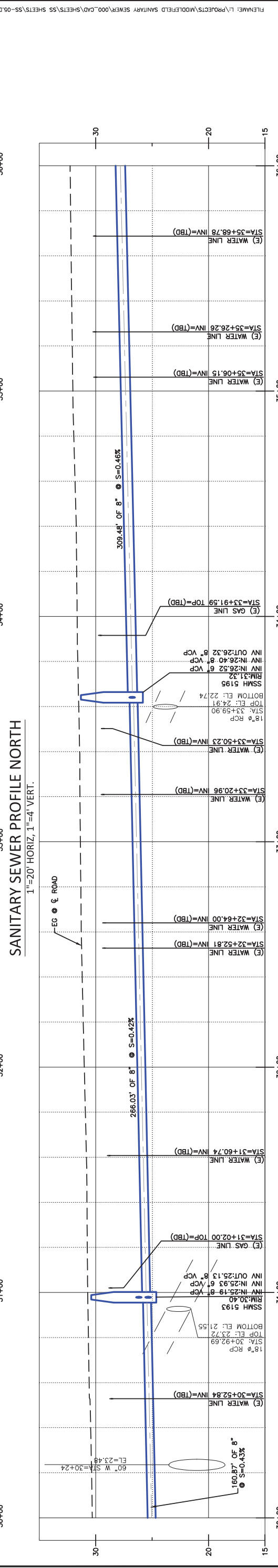
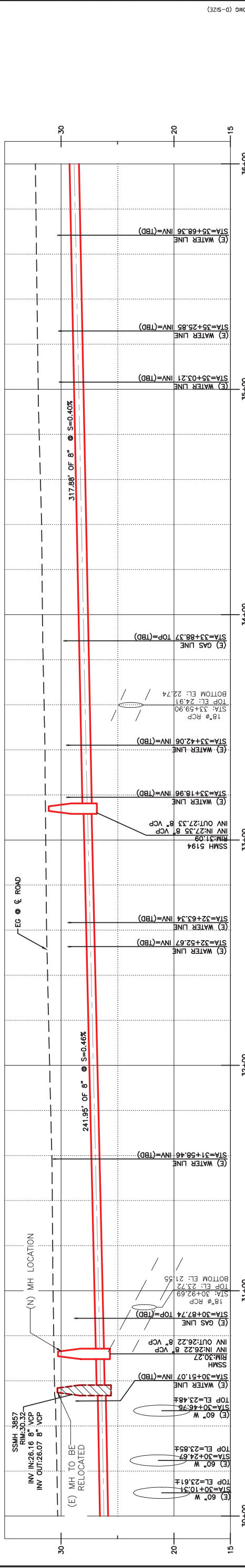
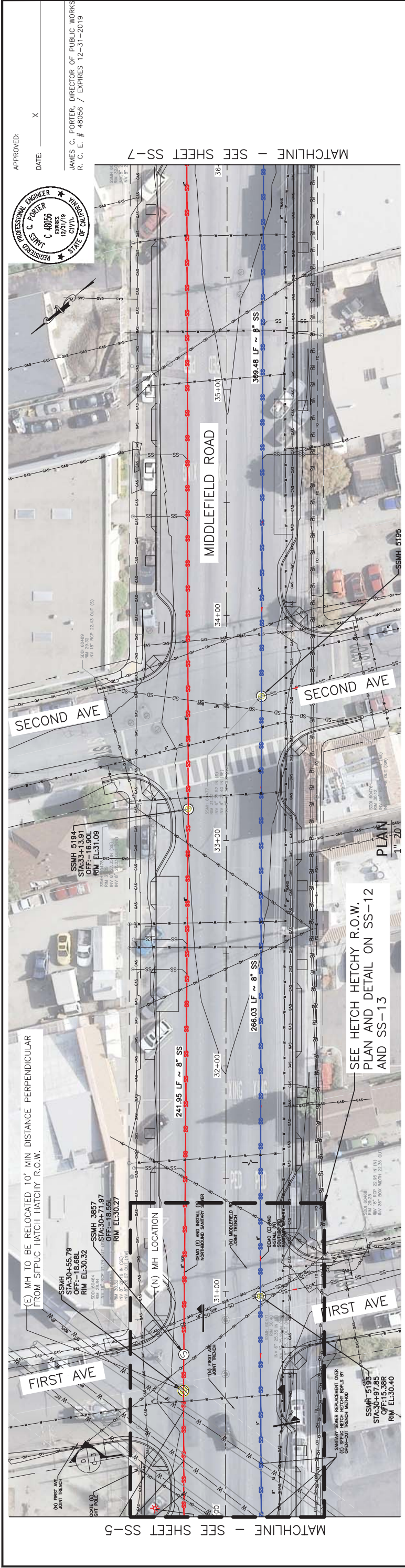
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DATE: 07-19-2017
FILE NO: 1/XXXX

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ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

SS-4
SHEET X OF X





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COUNTY OF SAN MATEO PUBLIC WORKS

COUNTY OF SAN MATEO
SANITARY SEWER UTILITY LAYOUT

DESIGNED BY: EA
CHECKED BY: TS
DRAWN BY: EM

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

DATE: _____

REVISION: _____

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

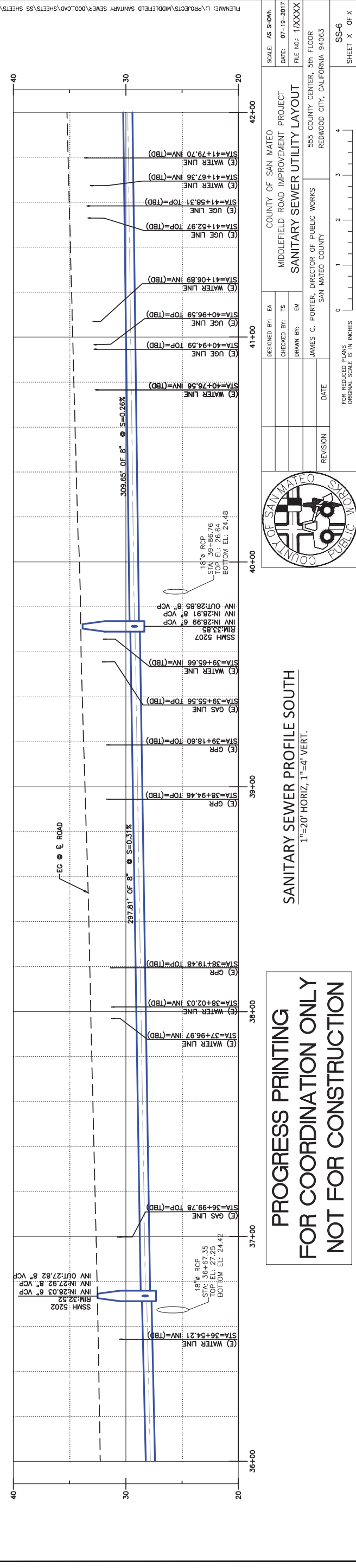
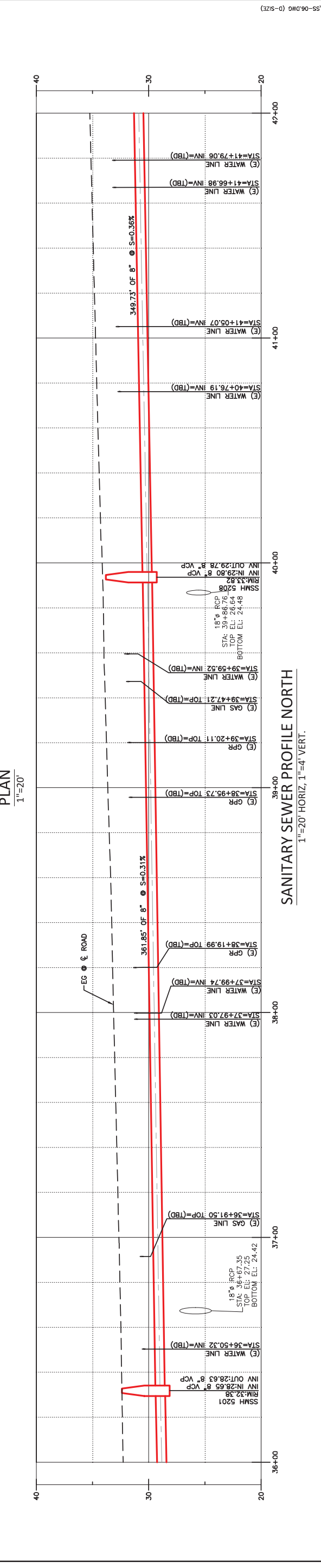
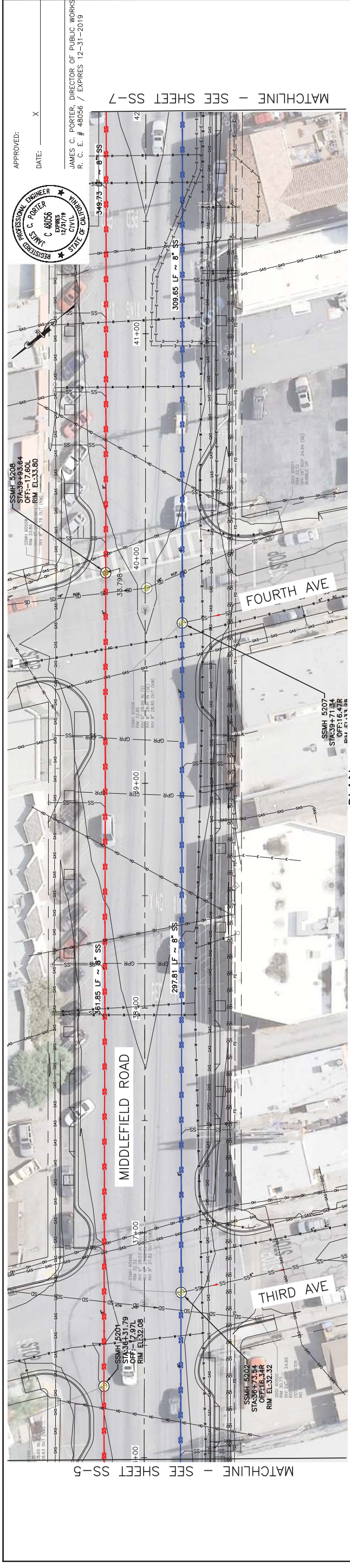
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SCALE: AS SHOWN
DATE: 07-19-2017
FILE NO: 1/XXXX

COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
SANITARY SEWER UTILITY LAYOUT

SS-5
SHEET X OF X

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SANITARY SEWER PROFILE SOUTH
1"=20' HORIZ, 1"=4' VERT.

COUNTY OF SAN MATEO PUBLIC WORKS

DESIGNED BY: EA
CHECKED BY: IS
DRAWN BY: EM

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

DATE: _____

REVISION: _____

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ORIGINAL SCALE IS IN INCHES

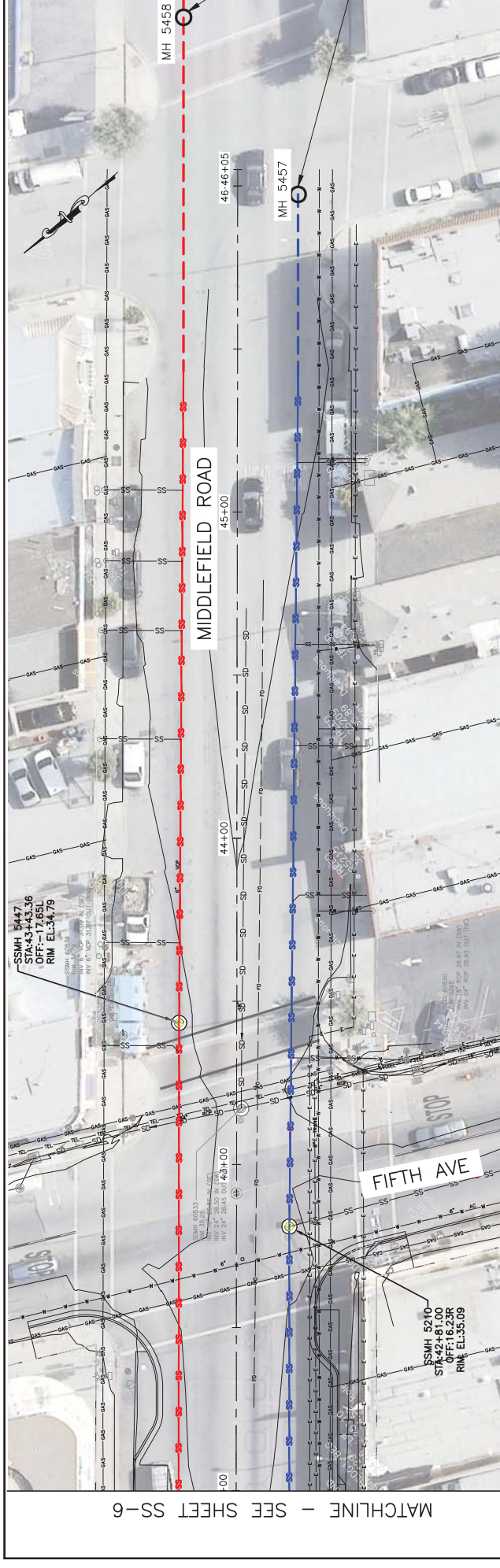
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SS-6
SHEET X OF X

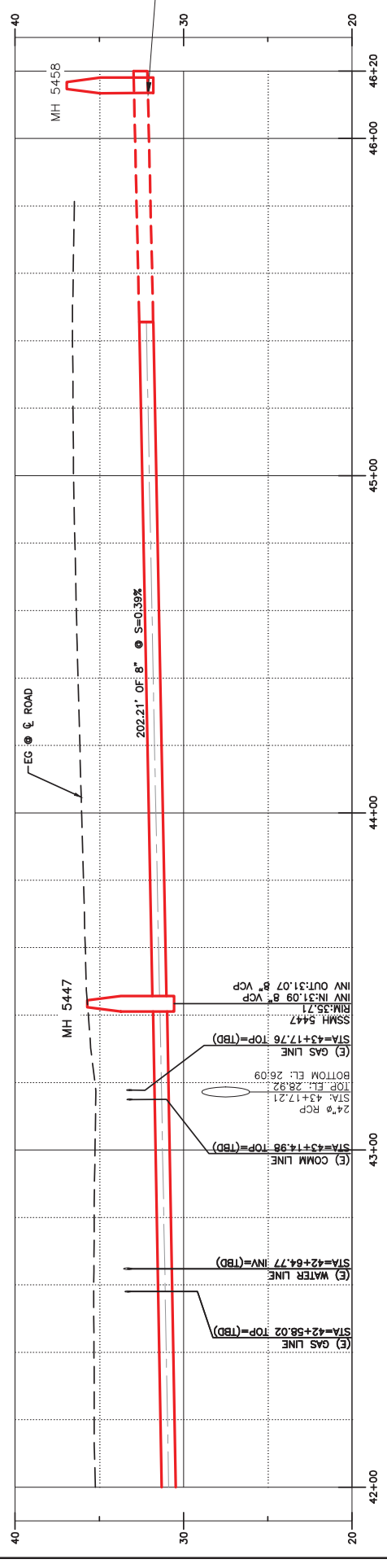
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FILE NO.: 17XXXX

COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
SANITARY SEWER UTILITY LAYOUT

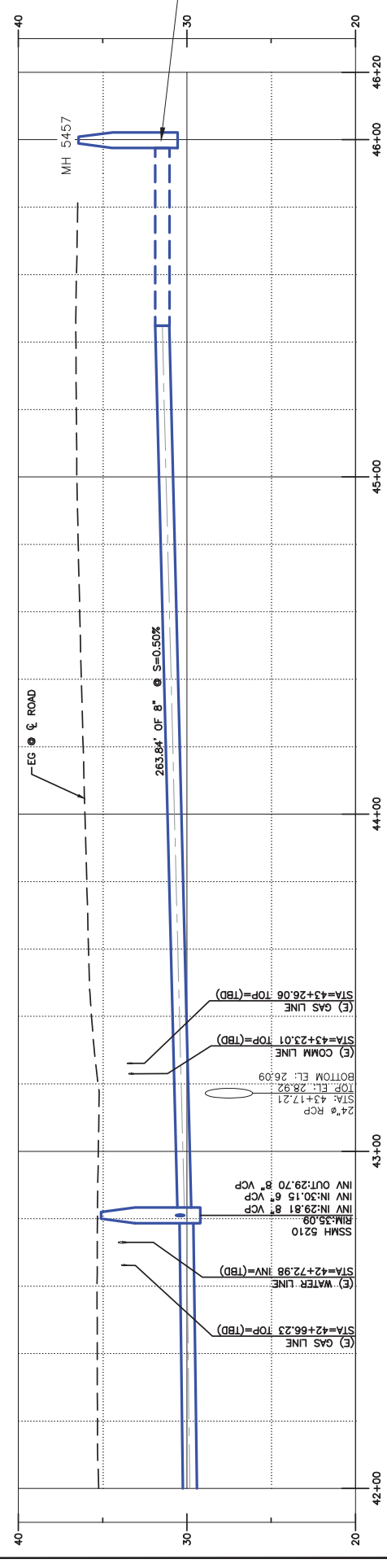
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PLAN
1"=20'



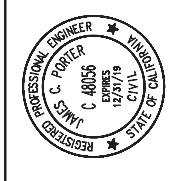
SANITARY SEWER PROFILE NORTH
1"=20' HORIZ, 1"=4' VERT.



SANITARY SEWER PROFILE SOUTH
1"=20' HORIZ, 1"=4' VERT.

APPROVED: _____ X
DATE: _____

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. # 48056 / EXPIRES 12-31-2019



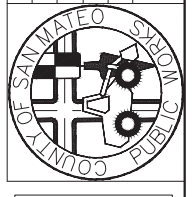
PENDING INFORMATION FROM
UTILITY SURVEY AND POTHOLE
INVESTIGATION

PENDING INFORMATION FROM
UTILITY SURVEY AND POTHOLE
INVESTIGATION

PENDING INFORMATION FROM
UTILITY SURVEY AND POTHOLE
INVESTIGATION

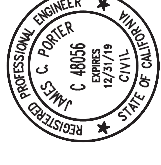
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UTILITY SURVEY AND POTHOLE
INVESTIGATION

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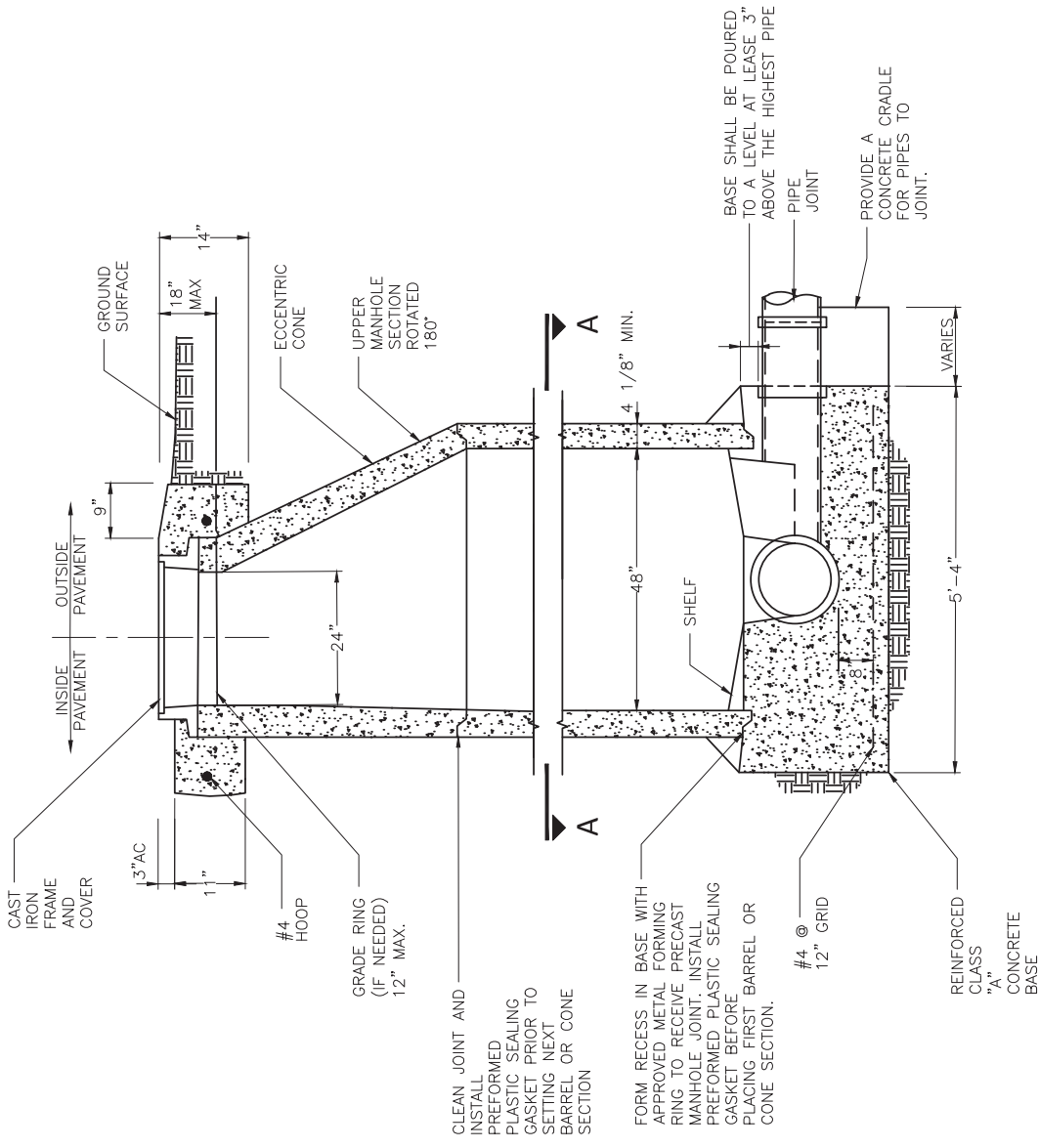


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COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT SANITARY SEWER UTILITY LAYOUT JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY 555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063				
SCALE: AS SHOWN	DATE: 07-19-2017	FILE NO.: 17XXXX	COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT SANITARY SEWER UTILITY LAYOUT JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY 555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				
0 1 2 3 4				SS-7 SHEET X OF X

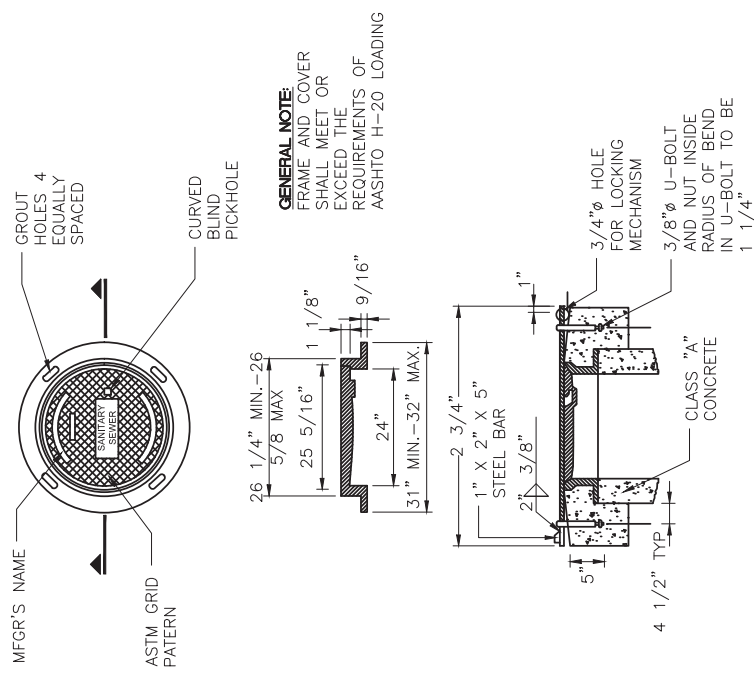


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 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2019



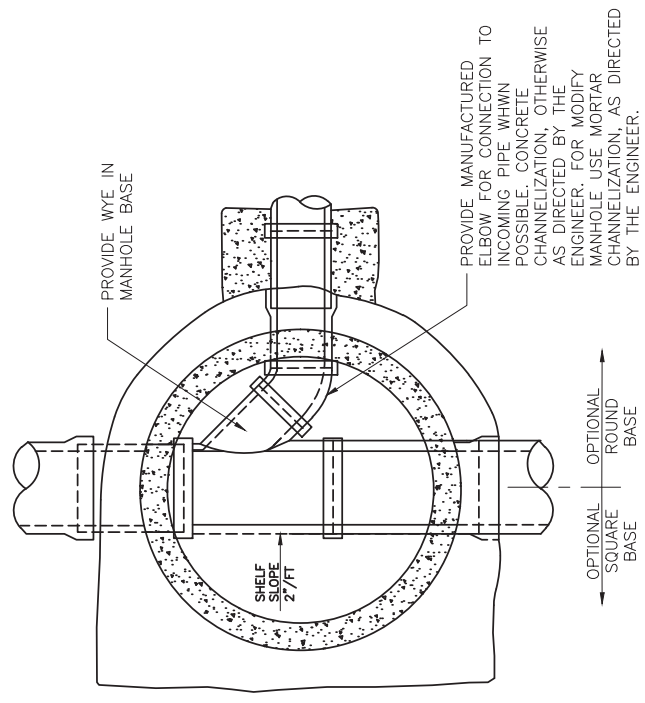
SANITARY SEWER MANHOLE DETAIL
 NOT TO SCALE

- NOTES:**
1. ALL STEEL TO BE 3" CLEAR.
 2. LAY PIPE THRU M.H. WHEN POSSIBLE.
 3. M.H. SHELF SHALL BE MORTARED TO A SLOPE OF 2"/FT.
 4. THERE SHALL BE NO STEPS IN THE MANHOLE.
 5. PERFORMED PLASTIC SEALING GASKET SHALL BE "RAM-NEK" OR APPROVED EQUAL.
 6. IN THE EVENT PVC OR ABS PIPES ARE APPROVED, STANDARD WATER STOPS SHALL BE INCORPORATED INTO THE MANHOLE BASE.
 7. MANHOLE THROAT LOCATION TO BE OPPOSITE THE LARGEST SHELF AREA OR DIRECTED BY THE ENGINEER.



- MANHOLE STRAP TO BE USED IN OFF ROAD AREA WHERE SPECIFIED BY ENGINEER
- U-BOLTS, NUT AND STRAP SHALL BE HOT DIP GALVANIZED AFTER FABRICATION

SANITARY SEWER MANHOLE COVER, FRAME AND STRAP DETAIL
 NOT TO SCALE



**PROGRESS PRINTING
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 NOT FOR CONSTRUCTION**



DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 07-19-2017
DRAWN BY: EM	SANITARY SEWER UTILITY DETAILS 1	FILE NO.: 1/XXXX
DATE	SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION		SS-8

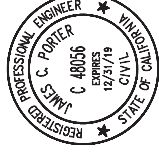
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

SHEET X OF X

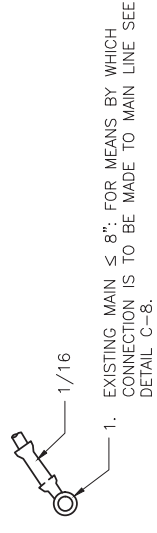
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DATE: X

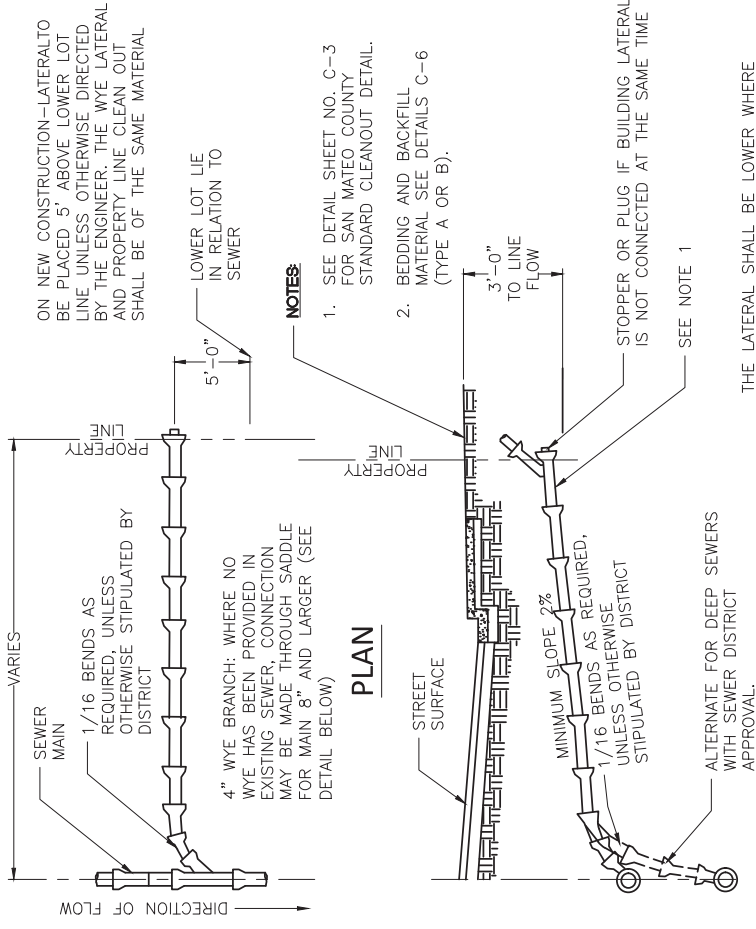


JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

FILENAME: L:\PROJECTS\MIDDLEFIELD SANITARY SEWER\000.CAD\SHEETS\SS SHEETS\SS-9 DETAIL SHEET 2.DWG (D-SIZE)



- EXISTING MAIN $\leq 8'$; FOR MEANS BY WHICH CONNECTION IS TO BE MADE TO MAIN LINE SEE DETAIL C-8.
- EXISTING MAIN 10"-18"; CONNECTION BY MEANS OF AN APPROVED SADDLE "TEE".
- EXISTING MAIN $> 18'$; CONNECTION SHALL BE AT A MANHOLE UNLESS OTHERWISE APPROVED BY SEWER DISTRICT.



- NOTES**
- SEE DETAIL SHEET NO. C-3 FOR SAN MATEO COUNTY STANDARD CLEANOUT DETAIL.
 - BEDDING AND BACKFILL MATERIAL SEE DETAILS C-6 (TYPE A OR B).

ON NEW CONSTRUCTION—LATERAL TO BE PLACED 5' ABOVE LOWER LOT LINE UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE WYE LATERAL AND PROPERTY LINE CLEAN OUT SHALL BE OF THE SAME MATERIAL.

LOWER LOT LIE IN RELATION TO SEWER

5'-0"

3'-0" TO LINE TO FLOW

STOPPER OR PLUG IF BUILDING LATERAL IS NOT CONNECTED AT THE SAME TIME

SEE NOTE 1

THE LATERAL SHALL BE LOWER WHERE NECESSARY TO SERVE EXISTING PLUMBING OR LOW LOTS WHEN DIRECTED BY THE ENGINEER.

LATERAL SIZES
A 4" LATERAL CAN BE USED FOR A SINGLE FAMILY RESIDENCE OR A SFR WITH A SECOND UNIT. A MINIMUM 6" LATERAL SHALL BE USED FOR ALL OTHER DEVELOPMENTS.

PROFILE

METHOD OF ATTACHING LATERAL TO EXISTING SEWER WHERE NO WYE HAS BEEN PROVIDED

SANITARY SEWER LATERAL DETAIL

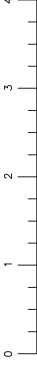
NOT TO SCALE

**PROGRESS PRINTING
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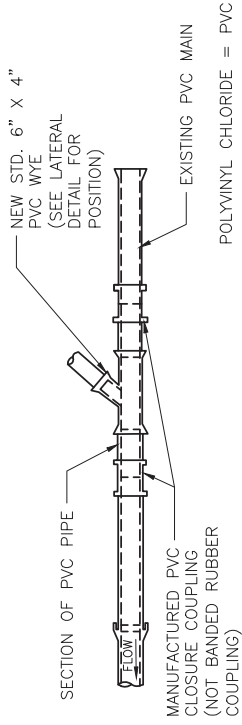


DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 07-19-2017
DRAWN BY: EM	SANITARY SEWER UTILITY DETAILS 2	FILE NO.: 1/XXXX
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR	
DATE	SAN MATEO COUNTY	
REVISION	REDWOOD CITY, CALIFORNIA 94063	

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES



SS-9
SHEET X OF X



NOTE:
ALL PVC PIPE AND FITTINGS SHALL BE SDR 35.35 AND SHALL HAVE RUBBER GASKETED JOINTS. SOLVENT WELDED JOINT SHALL NOT BE ALLOWED.

PLAN

POLYVINYL CHLORIDE PIPE

LATERAL CONNECTION INSTALLATION DETAIL ON EXISTING PIPE

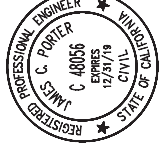
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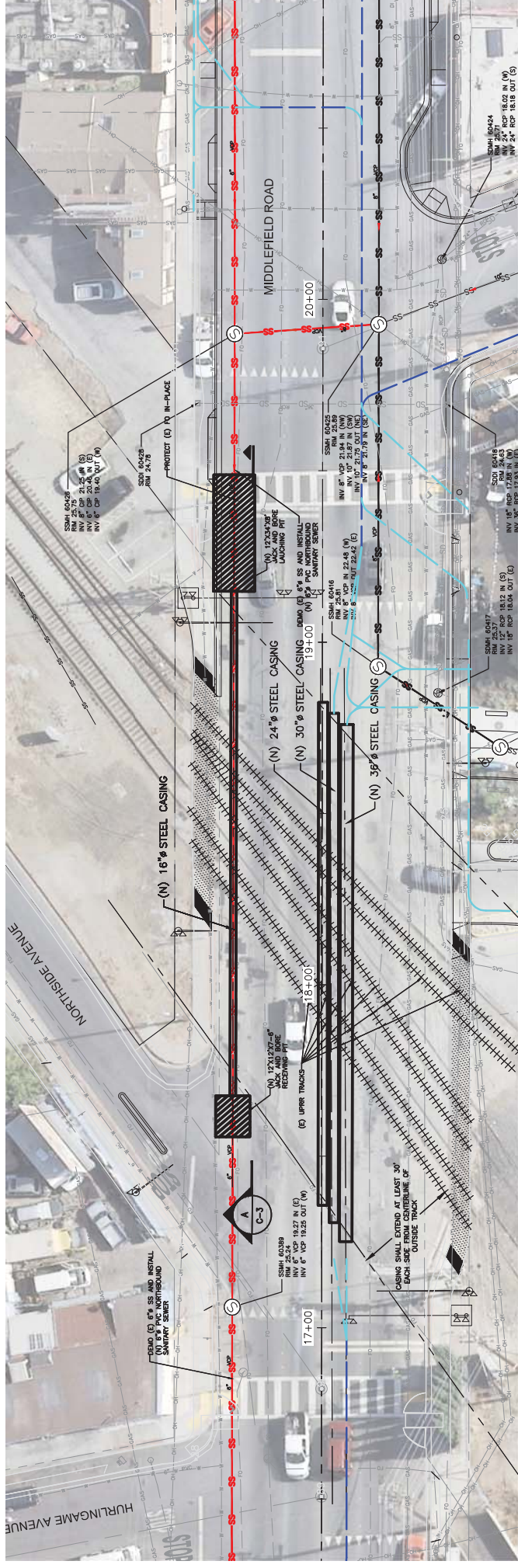
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- M.H. SHELF SHALL BE MORTARED TO A SLOPE OF 2"/FT.
- THERE SHALL BE NO STEPS IN THE MANHOLE.
- PERFORMED PLASTIC SEALING GASKET SHALL BE "RAM-NEK" OR APPROVED EQUAL.
- IN THE EVENT PVC OR ABS PIPES ARE APPROVED, STANDARD WATER STOPS SHALL BE INCORPORATED INTO THE MANHOLE BASE.
- MANHOLE THROAT LOCATION TO BE OPPOSITE THE LARGEST SHELF AREA OR DIRECTED BY THE ENGINEER.

APPROVED:

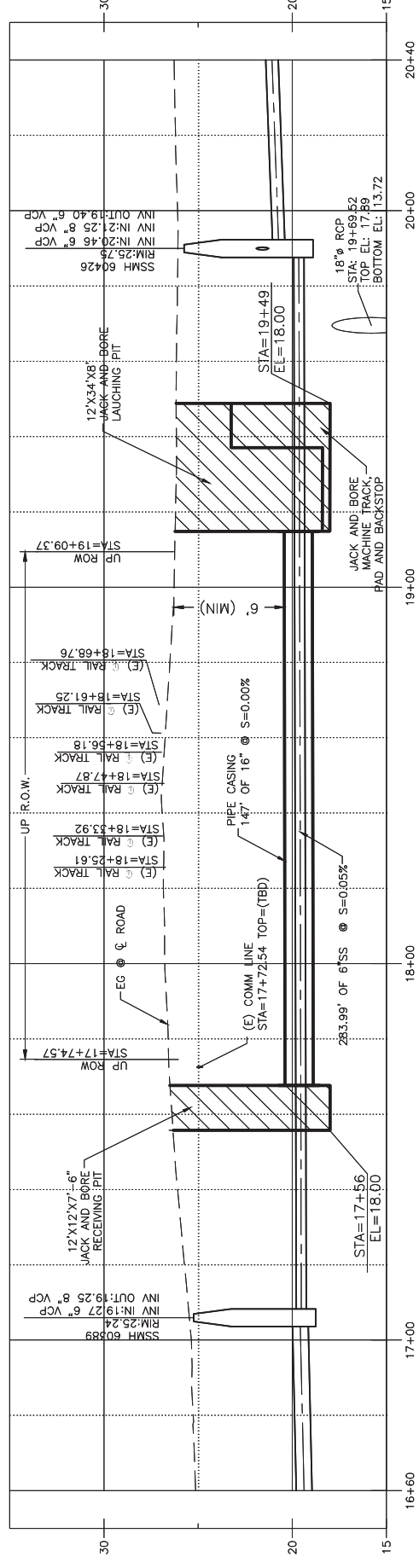
DATE: X



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R. C. E. # 48056 / EXPIRES 12-31-2019



PLAN
1"=20'



SANITARY SEWER PROFILE
1"=20' HORIZ, 1"=4' VERT.

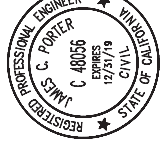
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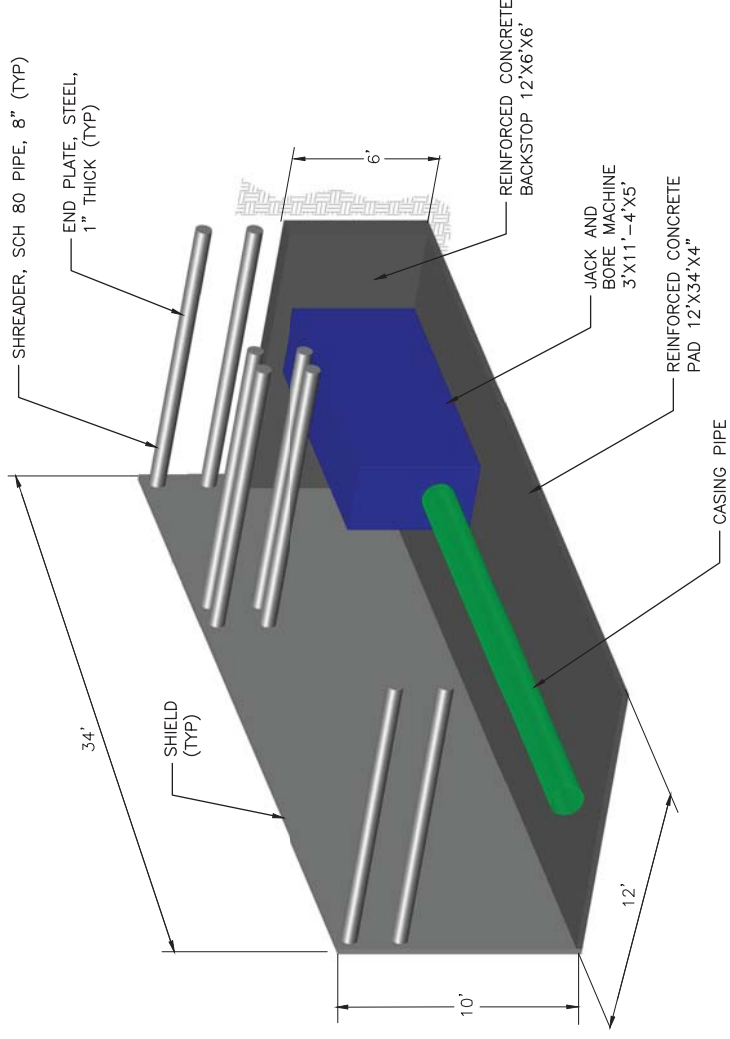
DESIGNED BY: 2	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: XX	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 07-19-2017
DRAWN BY: XX	SANITARY SEWER CROSSING PLAN	FILE NO: 1/XXXX
DATE	SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION		
DATE		
FOR REDUCED PLANS ORIGINAL SCALE: 15 IN. INCHES	0 1 2 3 4	SS-10 SHEET X OF X

APPROVED:

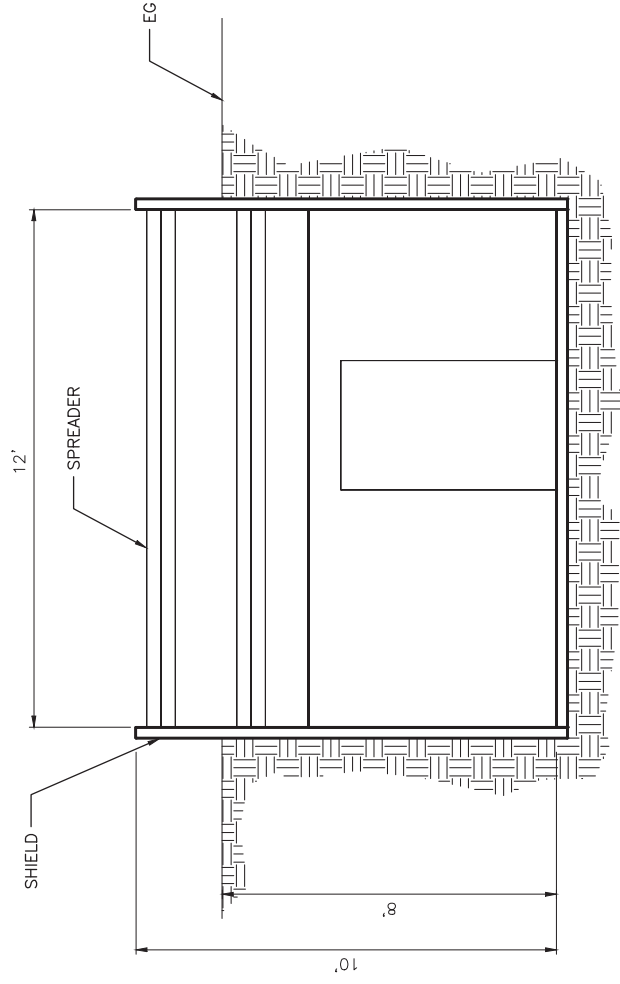
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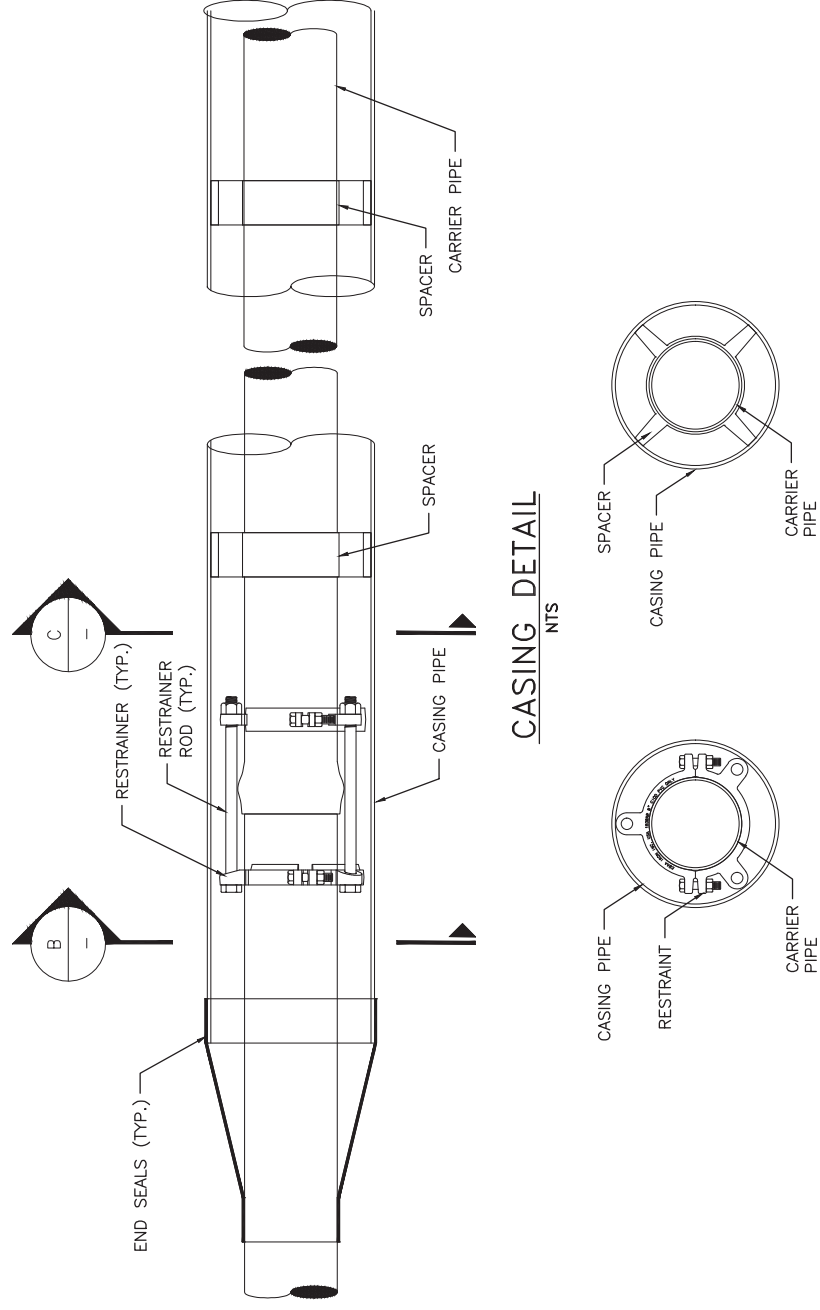


SHORING DETAIL
NTS

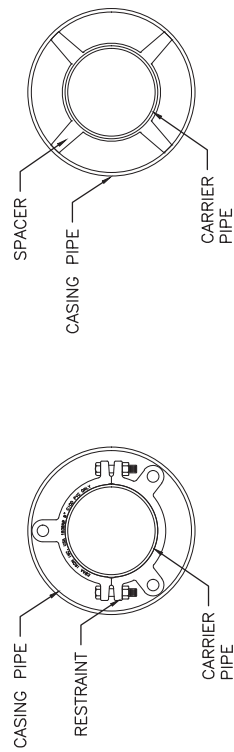


NOTES:

1. LAUNCH PIT (12'X34'X8') SHORING SYSTEM SHALL BE QUICK-SHOR SAND QSTB4-1024 AND 3-1010 STEEL BOXES W/ 840 PSF SOIL PRESSURE RATING.
2. RECEIVING PIT (12'X12'X7'-8") SHORING SYSTEM SHALL BE QUICK-SHOR QSTB4-1012 STEEL BOX W/ 677 PSF SOIL PRESSURE RATING.



CASING DETAIL
NTS



SECTION-B
NTS

SECTION-C
NTS

TABLE 1. SS UP ROW DETAILS

SECTION	MATERIAL	STANDARD	PRESSURE RATING	NOMINAL DIAMETER	O.D.	I.D.	T	MAX O.D.
UP CASING PIPE	WELDED STEEL	WELDED STEEL	NONE	16"	16.625"	16"	0.3125"	16.625"
UP CARRIER PIPE	PVC	ASTM C900	DR 25 165 PSI	6"	6.90"	6.31"	0.276"	8.00"
UP CARRIER PIPE RESTRAINT	DUCTILE IRON	ASTM A536	DR 25 100 PSI	6"	14.75"	6.90"	N/A	14.75"
NON-UP CARRIER PIPE	PVC	ASTM D3034	DR 26 NONE	6"	6.275"	5.793"	0.241"	7.239"



DESIGNED BY: LK
CHECKED BY: XX
DRAWN BY: EM

COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
SANITARY SEWER UPRR SECTIONS AND DETAILS

DATE: 07-19-2017
FILE NO.: 1/XXXX

REVISION

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
555 COUNTY CENTER, 5th FLOOR
REDWOOD CITY, CALIFORNIA 94063

SCALE: AS SHOWN

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

SS-11
SHEET X OF X

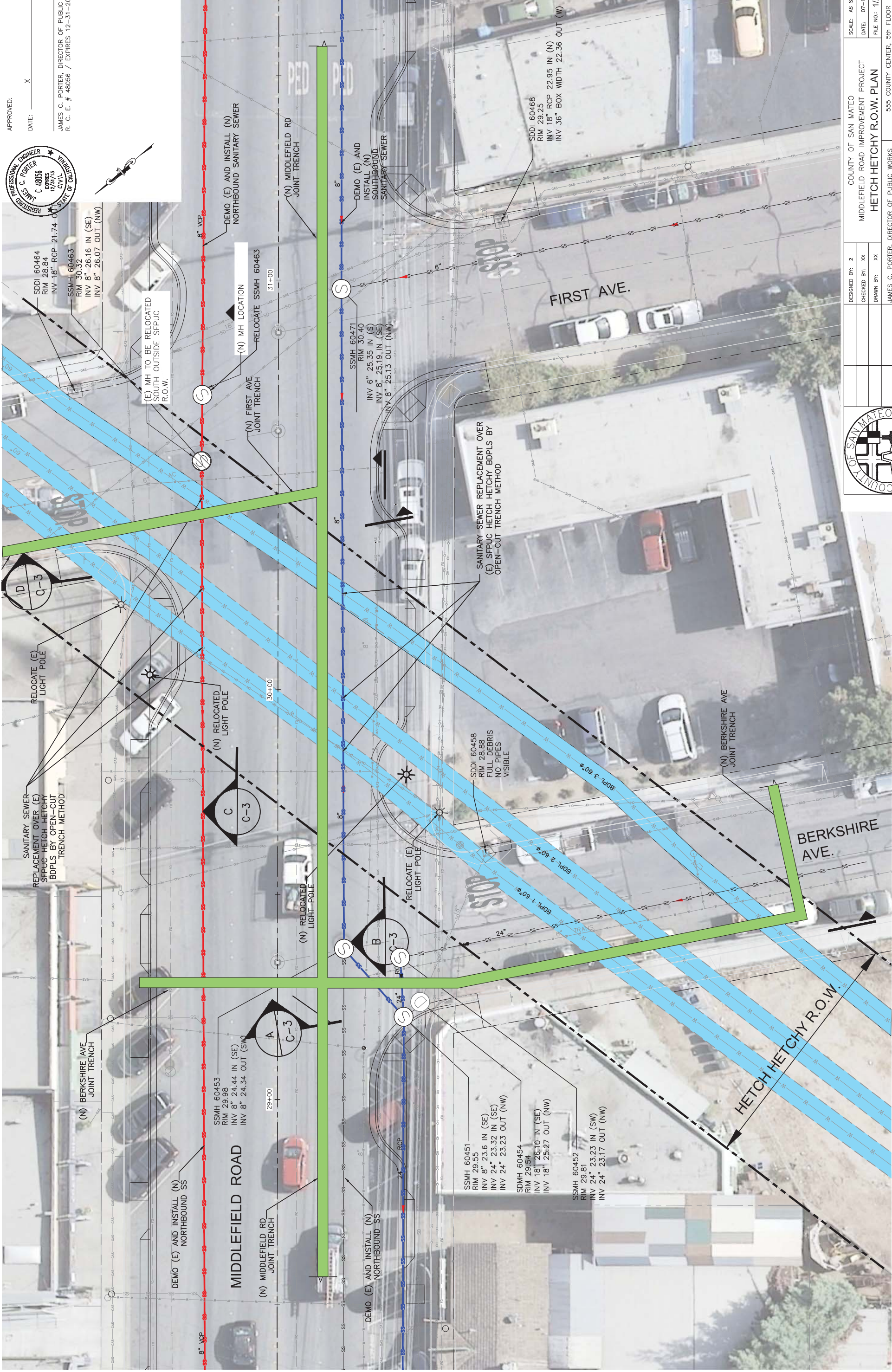
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APPROVED:

DATE: X



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R. C. E. # 48056 / EXPIRES 12-31-2013



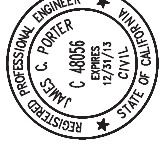
DESIGNED BY: 2	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: XX	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 07-19-2017
DRAWN BY: XX	HETCH HETCHY R.O.W. PLAN	FILE NO: 1/XXXX
DATE	SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION		

PLAN
1"=10'

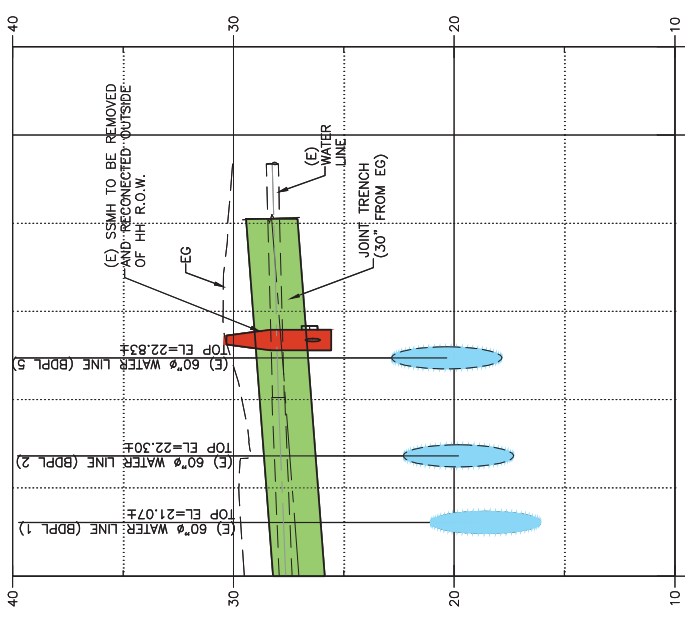
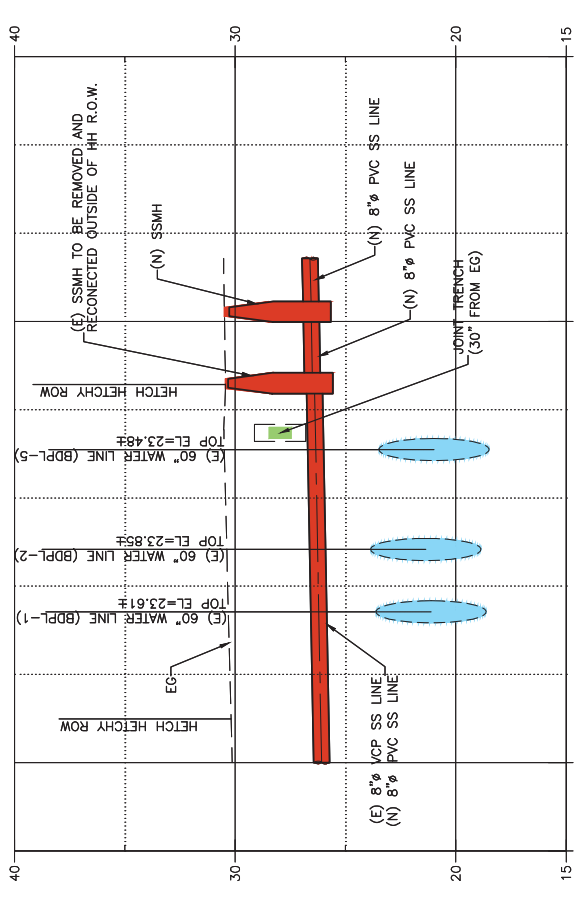
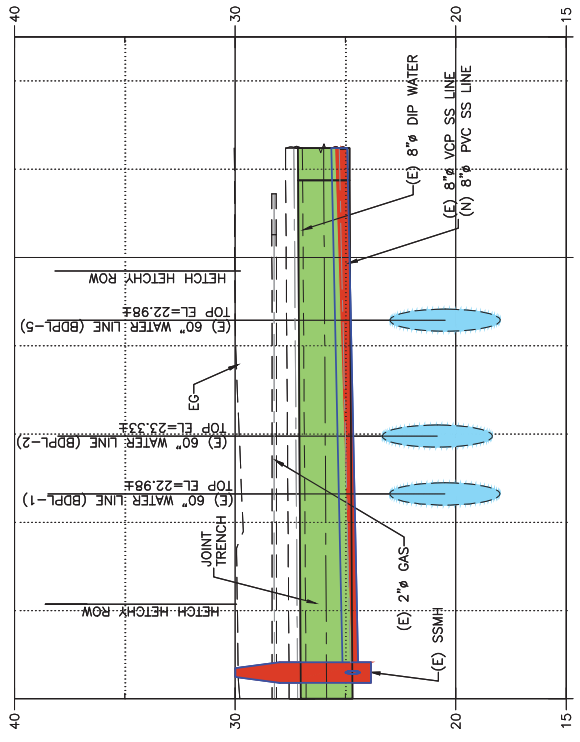
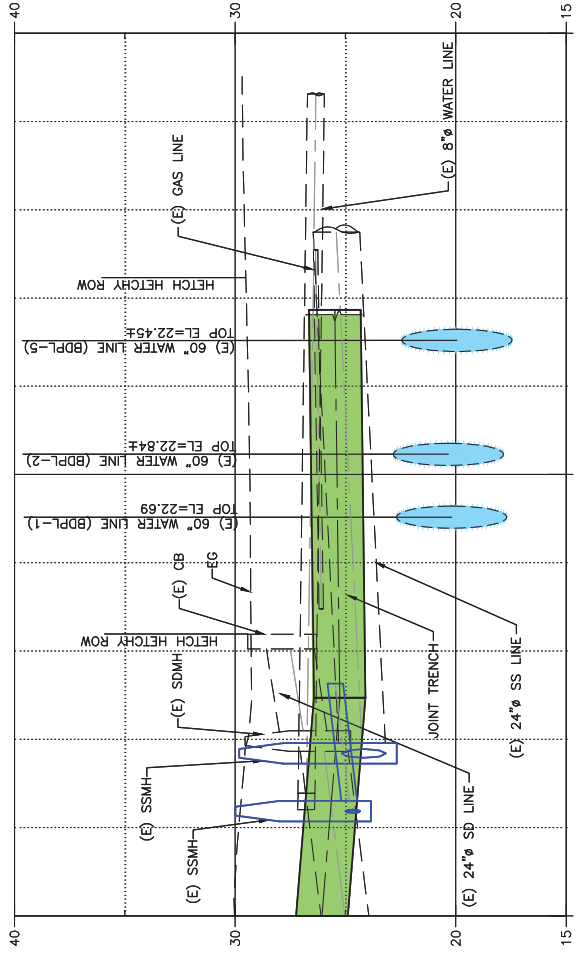
SS-12
SHEET X OF X

FILENAME: L:\PROJECTS\MIDDLEFIELD SANITARY SEWER\000_CAD\SHEETS\SS SHEETS\SS-12_SFPUC CROSSING PLAN.DWG (PLAN)

APPROVED: _____ X
 DATE: _____



JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2013



FILENAME: L:\PROJECTS\MIDDLEFIELD SANITARY SEWER\000_CAD\SHETS\SS SHEETS\SS-13 SPJUC CROSSING DETAILS.DWG (SECTIONS)



DESIGNED BY: LK	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: XX	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 07-19-2017
DRAWN BY: EM	HETCH HETCHY R.O.W. SECTIONS AND DETAILS	FILE NO: 1/XXXX
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	SAN MATEO COUNTY	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION	DATE	
FOR REDUCED PLANS ORIGINAL SCALE: 1/8" INCHES		
0 1 2 3 4		
		SS-13
		SHEET X OF X

LEGEND:

① REMOVE AND REPLACE EXISTING STREET SIGN AND STOP SIGN (TYPE R1)

P-1 PARKING STALL NO.
 △ DRIVEWAY NUMBER

DWY-18 DRIVEWAY LOCATION AND WIDTH

- ① INSTALL DETAIL 32 (STATE DETAIL SHEET A208)
- ② INSTALL "STOP" LEGEND (STATE DETAIL SHEET A24D)
- ③ STRIPING
- ④ INSTALL LEFT TURN ARROW (STATE TYPE IV)
- ⑤ INSTALL RIGHT TURN ARROW (STATE TYPE IV)
- ⑥ INSTALL RIGHT LANE DROP ARROW (STATE TYPE VI)
- ⑦ INSTALL STRAIGHT ARROW (STATE TYPE I (10))
- ⑧ INSTALL BIKE LANE ARROW (STATE DETAIL SHEET A24A)
- ⑨ INSTALL BIKE LANE SYMBOL WITH PERSON (STATE DETAIL ON SHEET A24C)

- ⑩ INSTALL SHARED ROADWAY BICYCLE MARKING (STATE DETAIL ON SHEET A24C)
- ⑪ INSTALL RAILROAD CROSSING SYMBOL (STATE DETAIL ON SHEET A24B)
- ⑫ INSTALL DETAIL 23 (STATE DETAIL SHEET A20A)
- ⑬ INSTALL "RED XING" LEGEND (STATE DETAIL SHEET A24D)
- ⑭ INSTALL DETAIL 38 (STATE DETAIL SHEET A20D)
- ⑮ INSTALL DETAIL 39A (STATE DETAIL SHEET A20D)
- ⑯ INSTALL DETAIL 39 (STATE DETAIL SHEET A20D)
- ⑰ INSTALL 4" WHITE THERMOPLASTIC STRIPING (STATE DETAIL SHEET A200)
- ⑱ INSTALL 4" WHITE THERMOPLASTIC DIAGONAL STRIPING ANGLED AT 45 DEGREES AND 3' INTERVALS (STATE DETAIL ON SHEET A24C)

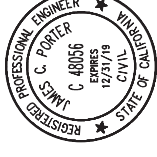
- ⑲ INSTALL TYPE III (B) ARROW (STATE DETAIL ON SHEET A24B)
- ⑳ INSTALL "ONLY" LEGEND (STATE DETAIL A24E)

- 1. FINAL LOCATION OF SIGNS, STRIPING, MARKINGS, AND PAVEMENT MARKERS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
- 2. SEE SHEETS ST-7 AND ST-8 FOR SIGNING AND STRIPING DETAILS.

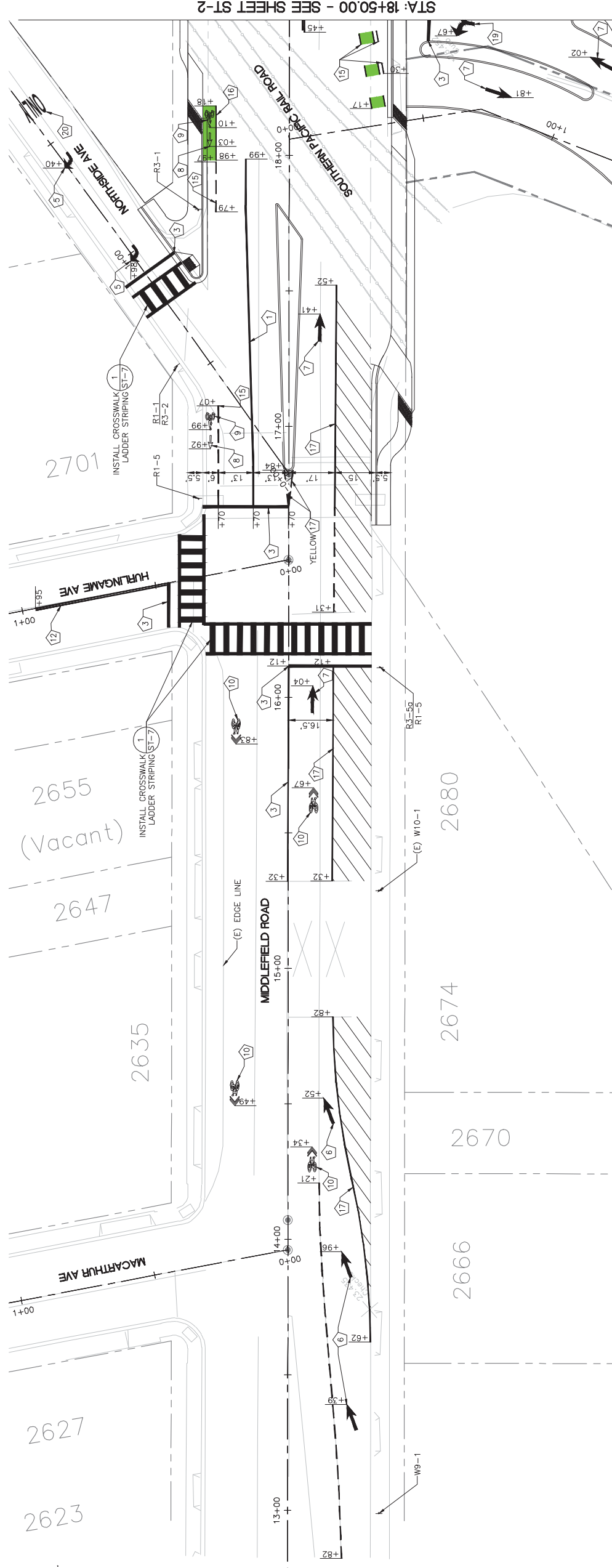
NOTES:

APPROVED:

DATE:

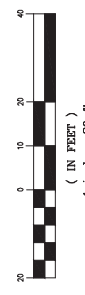
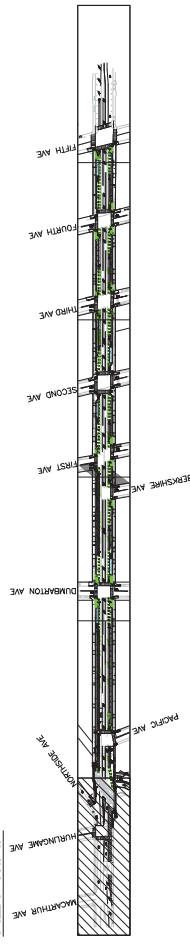


JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2019



STA: 18+50.00 - SEE SHEET ST-2

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

		COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT SIGNING AND STRIPING PLAN	SCALE: AS SHOWN DATE: 04-06-2018 FILE NO: 1/XXXX
DESIGNED BY: EA	CHECKED BY: TS	DRAWN BY: EA	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY 555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION	DATE	FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES	
	0 1 2 3 4	ST-1	SHEET X OF X

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\SIGNING AND STRIPING PLAN\ST-1-SIGNING & STRIPING.DWG (ST-1)

LEGEND:

① REMOVE AND REPLACE EXISTING STREET SIGN AND STOP SIGN (TYPE R1)

P-1 PARKING STALL NO.

△ DRIVEWAY NUMBER

DWY-18 DRIVEWAY LOCATION AND WIDTH

- ① INSTALL DETAIL 32 (STATE DETAIL SHEET A20B)
- ② INSTALL "STOP" LEGEND (STATE DETAIL SHEET A24D)
- ③ STRIPING
- ④ INSTALL LEFT TURN ARROW (STATE TYPE IV)
- ⑤ INSTALL RIGHT TURN ARROW (STATE TYPE IV)
- ⑥ INSTALL RIGHT LANE DROP ARROW (STATE TYPE VI)
- ⑦ INSTALL STRAIGHT ARROW (STATE TYPE I (10))
- ⑧ INSTALL BIKE LANE ARROW (STATE DETAIL SHEET A24A)
- ⑨ INSTALL BIKE LANE SYMBOL WITH PERSON (STATE DETAIL ON SHEET A24C)

- ⑩ INSTALL SHARED ROADWAY BICYCLE MARKING (STATE DETAIL ON SHEET A24C)
- ⑪ INSTALL RAILROAD CROSSING SYMBOL (STATE DETAIL ON SHEET A24B)
- ⑫ INSTALL DETAIL 23 (STATE DETAIL SHEET A20A)
- ⑬ INSTALL "RED XING" LEGEND (STATE DETAIL SHEET A24D)
- ⑭ INSTALL DETAIL 38 (STATE DETAIL SHEET A20D)
- ⑮ INSTALL DETAIL 39A (STATE DETAIL SHEET A20D)
- ⑯ INSTALL DETAIL 39 (STATE DETAIL SHEET A20D)
- ⑰ INSTALL 4" WHITE THERMOPLASTIC STRIPING (STATE DETAIL SHEET A200)
- ⑱ INSTALL 4" WHITE THERMOPLASTIC DIAGONAL STRIPING ANGLED AT 45 DEGREES AND 3' INTERVALS (STATE DETAIL ON SHEET A24C)

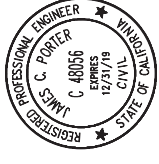
- ⑲ INSTALL TYPE III (B) ARROW (STATE DETAIL ON SHEET A24B)
- ⑳ INSTALL "ONLY" LEGEND (STATE DETAIL A24E)

NOTES:

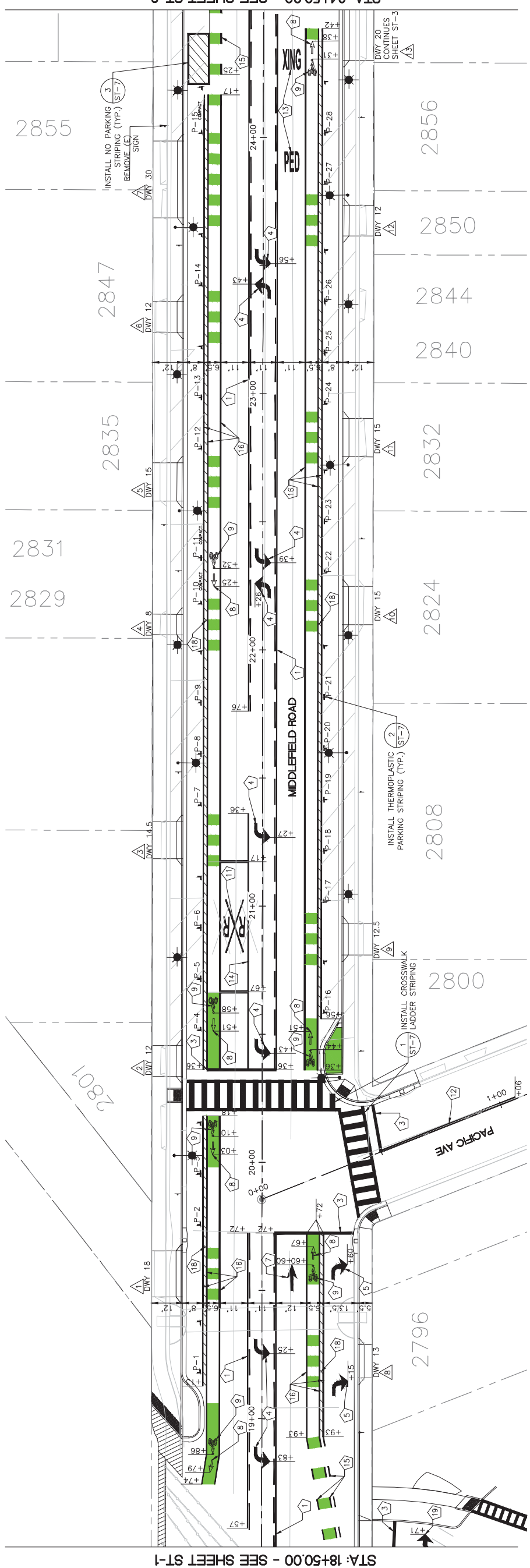
1. FINAL LOCATION OF SIGNS, STRIPING, MARKINGS, AND PAVEMENT MARKERS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
2. SEE SHEETS ST-7 AND ST-8 FOR SIGNING AND STRIPING DETAILS.

APPROVED:

DATE:



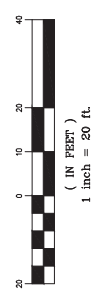
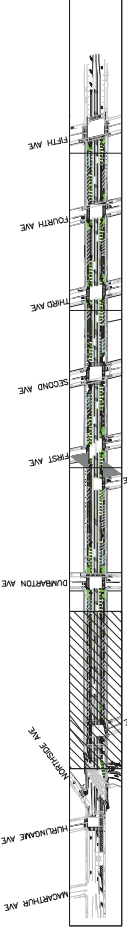
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



STA: 24+50.00 - SEE SHEET ST-3

STA: 18+50.00 - SEE SHEET ST-1

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

		COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT SIGNING AND STRIPING PLAN	SCALE: AS SHOWN DATE: 04-06-2018 FILE NO: 1/XXXX
DESIGNED BY: EA	CHECKED BY: TS	DRAWN BY: EA	DATE
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY		555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES			0 1 2 3 4 ST-2 SHEET X OF X

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\SIGNING AND STRIPING PLAN\ST-2_SIGNING.&STRIPING.DWG (ST-2)

LEGEND:

① REMOVE AND REPLACE EXISTING STREET SIGN AND STOP SIGN (TYPE R1)

P-1 PARKING STALL NO.

△ DRIVEWAY NUMBER

DWY 18 DRIVEWAY LOCATION AND WIDTH

① INSTALL DETAIL 32 (STATE DETAIL SHEET A20B)

② INSTALL "STOP" LEGEND (STATE DETAIL SHEET A24D)

③ INSTALL 12" WHITE THERMOPLASTIC STRIPING

④ INSTALL LEFT TURN ARROW (STATE TYPE IV)

⑤ INSTALL RIGHT TURN ARROW (STATE TYPE IV)

⑥ INSTALL RIGHT LANE DROP ARROW (STATE TYPE VI)

⑦ INSTALL STRAIGHT ARROW (STATE TYPE I (10))

⑧ INSTALL BIKE LANE ARROW (STATE DETAIL SHEET A24A)

⑨ INSTALL BIKE LANE SYMBOL WITH PERSON (STATE DETAIL ON SHEET A24C)

⑩ INSTALL SHARED ROADWAY BICYCLE MARKING (STATE DETAIL ON SHEET A24C)

⑪ INSTALL RAILROAD CROSSING SYMBOL (STATE DETAIL ON SHEET A24B)

⑫ INSTALL DETAIL 23 (STATE DETAIL SHEET A20A)

⑬ INSTALL "RED XING" LEGEND (STATE DETAIL SHEET A24D)

⑭ INSTALL DETAIL 38 (STATE DETAIL SHEET A20D)

⑮ INSTALL DETAIL 39A (STATE DETAIL SHEET A20D)

⑯ INSTALL DETAIL 39 (STATE DETAIL SHEET A20D)

⑰ INSTALL 4" WHITE THERMOPLASTIC STRIPING

⑱ INSTALL 4" WHITE THERMOPLASTIC DIAGONAL STRIPING ANGLED AT 45 DEGREES AND 3' INTERVALS

⑲ INSTALL TYPE III (B) ARROW (STATE DETAIL ON SHEET A24B)

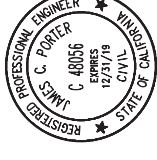
⑳ INSTALL "ONLY" LEGEND (STATE DETAIL A24E)

NOTES:

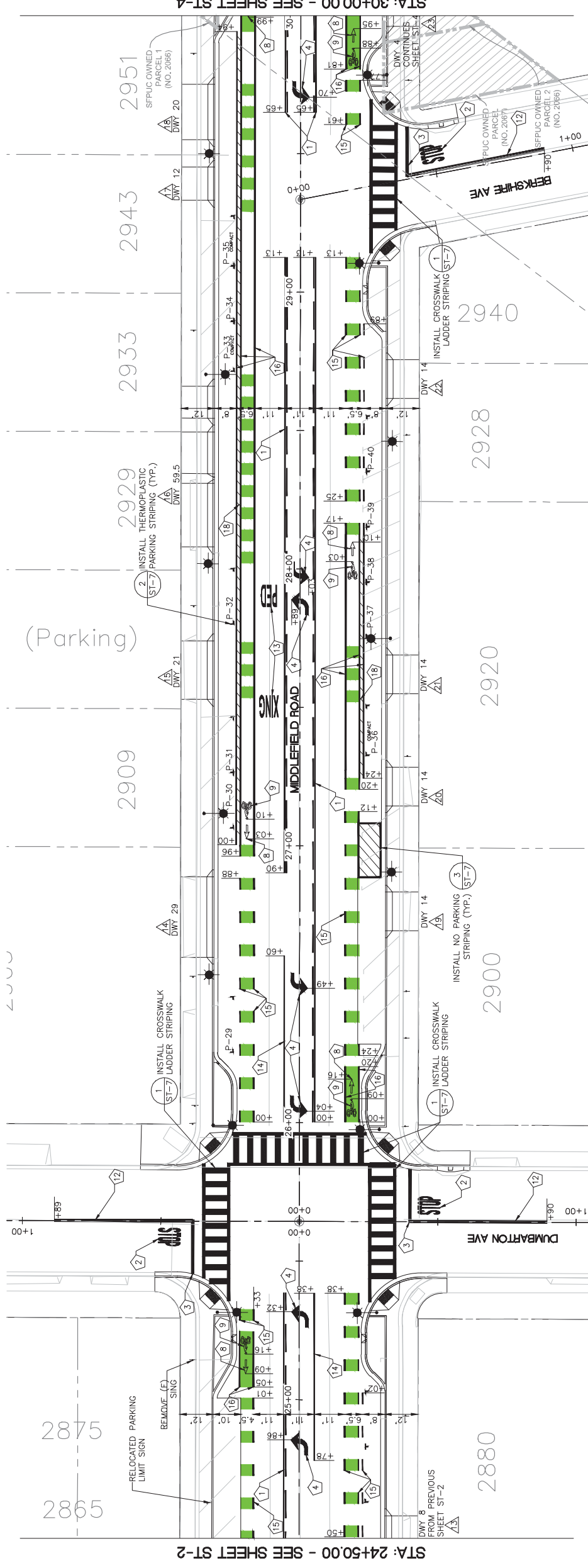
1. FINAL LOCATION OF SIGNS, STRIPING, MARKINGS, AND PAVEMENT MARKERS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. SEE SHEETS ST-7 AND ST-8 FOR SIGNING AND STRIPING DETAILS.

APPROVED:

DATE:



JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



STA: 24+50.00 - SEE SHEET ST-2

STA: 30+00.00 - SEE SHEET ST-4

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION



DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: EA	SIGNING AND STRIPING PLAN	FILE NO: 1/XXXX
DATE	SAN MATEO COUNTY	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES	0 1 2 3 4	ST-3 SHEET X OF X

LEGEND:

- ① REMOVE AND REPLACE EXISTING STREET SIGN AND STOP SIGN (TYPE R1)
- P-1 PARKING STALL NO.
- △ DRIVEWAY NUMBER
- DWY-18 DRIVEWAY LOCATION AND WIDTH

- ① INSTALL DETAIL 32 (STATE DETAIL SHEET A20B)
- ② INSTALL "STOP" LEGEND (STATE DETAIL SHEET A24D)
- ③ INSTALL 12" WHITE THERMOPLASTIC STRIPING
- ④ INSTALL LEFT TURN ARROW (STATE TYPE IV)
- ⑤ INSTALL RIGHT TURN ARROW (STATE TYPE IV)
- ⑥ INSTALL RIGHT LANE DROP ARROW (STATE TYPE VI)
- ⑦ INSTALL STRAIGHT ARROW (STATE TYPE I (10))
- ⑧ INSTALL BIKE LANE ARROW (STATE DETAIL SHEET A24A)
- ⑨ INSTALL BIKE LANE SYMBOL WITH PERSON (STATE DETAIL ON SHEET A24C)

- ⑩ INSTALL SHARED ROADWAY BICYCLE MARKING (STATE DETAIL ON SHEET A24C)
- ⑪ INSTALL RAILROAD CROSSING SYMBOL (STATE DETAIL ON SHEET A24B)
- ⑫ INSTALL DETAIL 23 (STATE DETAIL SHEET A20A)
- ⑬ INSTALL "RED XING" LEGEND (STATE DETAIL SHEET A24D)
- ⑭ INSTALL DETAIL 38 (STATE DETAIL SHEET A20D)
- ⑮ INSTALL DETAIL 39A (STATE DETAIL SHEET A20D)
- ⑯ INSTALL DETAIL 39 (STATE DETAIL SHEET A20D)
- ⑰ INSTALL 4" WHITE THERMOPLASTIC STRIPING
- ⑱ INSTALL 4" WHITE THERMOPLASTIC DIAGONAL STRIPING ANGLED AT 45 DEGREES AND 3" INTERVALS

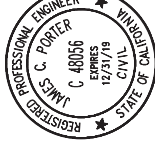
- ⑲ INSTALL TYPE III (B) ARROW (STATE DETAIL ON SHEET A24B)
- ⑳ INSTALL "ONLY" LEGEND (STATE DETAIL A24E)

NOTES:

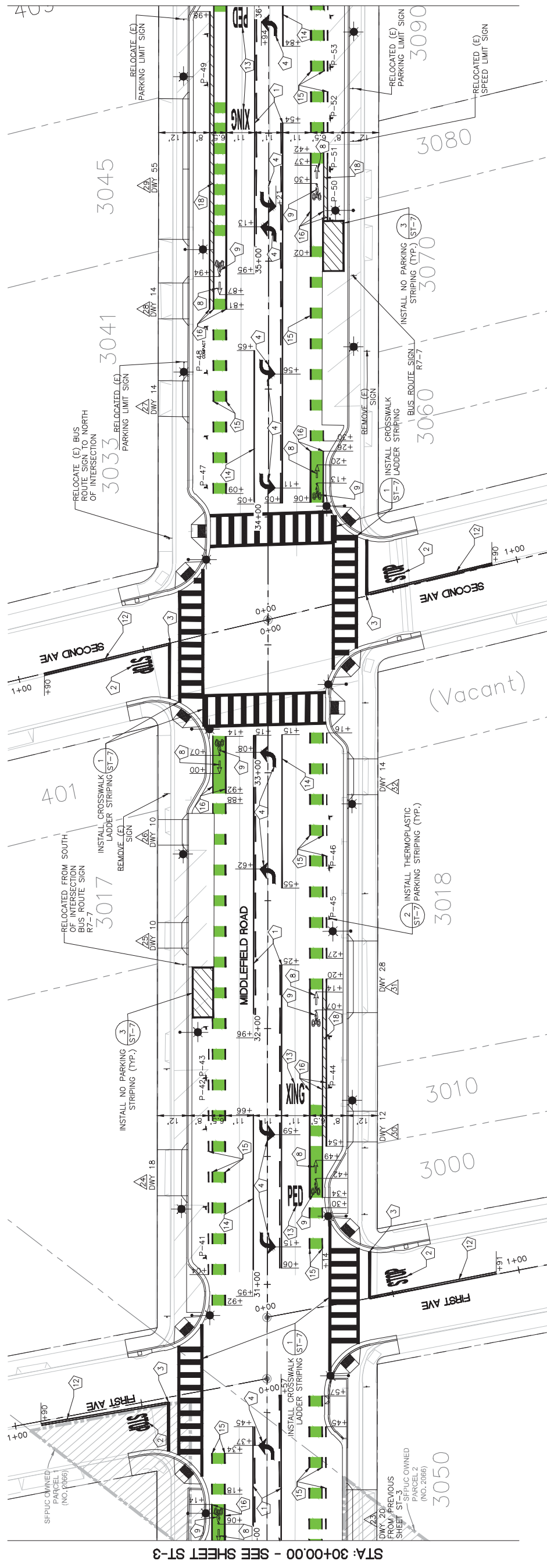
1. FINAL LOCATION OF SIGNS, STRIPING, MARKINGS AND PAVEMENT MARKERS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
2. SEE SHEETS ST-7 AND ST-8 FOR SIGNING AND STRIPING DETAILS.

APPROVED:

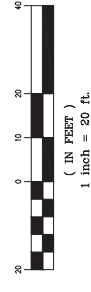
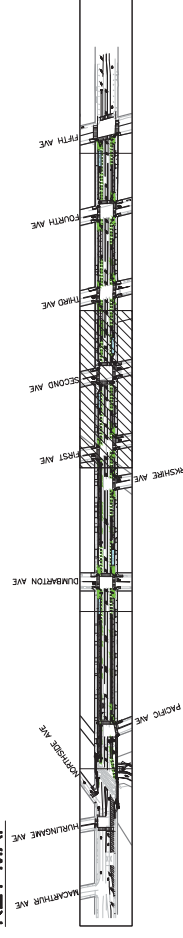
DATE:



JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



KEY MAP



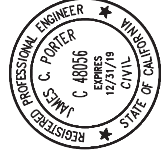
PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION



DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: EA	SIGNING AND STRIPING PLAN	FILE NO: 1/XXXX
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
DATE	SAN MATEO COUNTY	ST-4
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		SHEET X OF X

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETSCAPE\000_CAD\SHEETS\SIGNING AND STRIPING PLAN\ST-4_SIGNING & STRIPING.DWG (ST-4)

APPROVED:



DATE:

- NOTES:
1. FINAL LOCATION OF SIGNS, STRIPING, MARKINGS AND PAVEMENT MARKERS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. SEE SHEETS ST-7 AND ST-8 FOR SIGNING AND STRIPING DETAILS.

19. INSTALL TYPE III (B) ARROW (STATE DETAIL ON SHEET A24B)
20. INSTALL "ONLY" LEGEND (STATE DETAIL A24E)

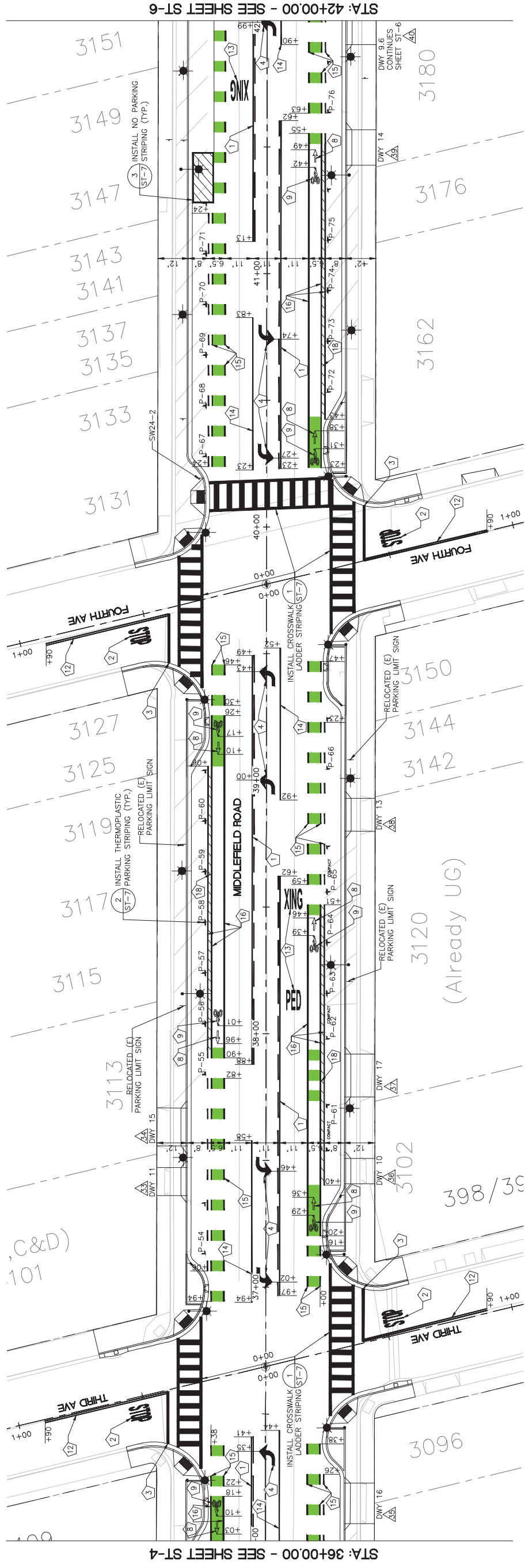
10. INSTALL SHARED ROADWAY BICYCLE MARKING (STATE DETAIL ON SHEET A24C)
11. INSTALL RAILROAD CROSSING SYMBOL (STATE DETAIL ON SHEET A24B)
12. INSTALL DETAIL 23 (STATE DETAIL SHEET A20A)
13. INSTALL "PED XING" LEGEND (STATE DETAIL SHEET A24D)
14. INSTALL DETAIL 38 (STATE DETAIL SHEET A20D)
15. INSTALL DETAIL 39A (STATE DETAIL SHEET A20D)
16. INSTALL DETAIL 39 (STATE DETAIL SHEET A20D)
17. INSTALL 4" WHITE THERMOPLASTIC STRIPING (STATE DETAIL SHEET A24C)
18. INSTALL 4" WHITE THERMOPLASTIC DIAGONAL STRIPING ANGLED AT 45 DEGREES AND 3' INTERVALS

1. INSTALL DETAIL 32 (STATE DETAIL SHEET A20B)
2. INSTALL "STOP" LEGEND (STATE DETAIL SHEET A24D)
3. INSTALL 12" WHITE THERMOPLASTIC STRIPING
4. INSTALL LEFT TURN ARROW (STATE TYPE IV)
5. INSTALL RIGHT TURN ARROW (STATE TYPE IV)
6. INSTALL RIGHT LANE DROP ARROW (STATE TYPE VI)
7. INSTALL STRAIGHT ARROW (STATE TYPE I (10))
8. INSTALL BIKE LANE ARROW (STATE DETAIL SHEET A24A)
9. INSTALL BIKE LANE SYMBOL WITH PERSON (STATE DETAIL ON SHEET A24C)

- P-1 PARKING STALL NO.
- DRIVEWAY NUMBER
- DWY 18 DRIVEWAY LOCATION AND WIDTH

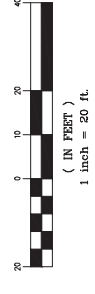
LEGEND:

1. REMOVE AND REPLACE EXISTING STREET SIGN AND STOP SIGN (TYPE R1)



STA: 36+00.00 - SEE SHEET ST-4

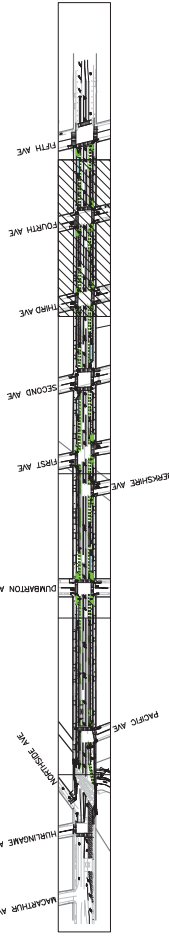
STA: 42+00.00 - SEE SHEET ST-6



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: EA	SIGNING AND STRIPING PLAN	FILE NO: 1/XXXX
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
DATE	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES	0 1 2 3 4	ST-5
		SHEET X OF X

KEY MAP

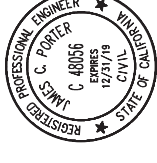


FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\SIGNING AND STRIPING PLAN\ST-5_SIGNING & STRIPING.DWG (12-5)

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



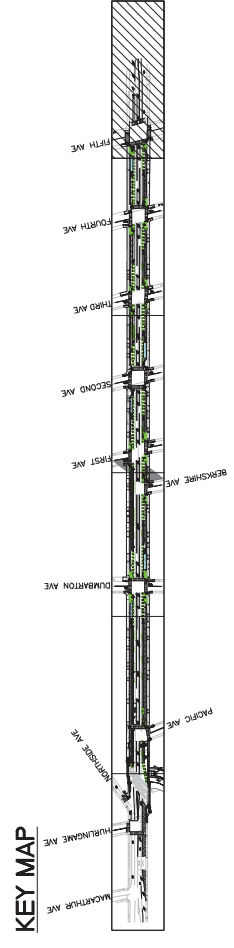
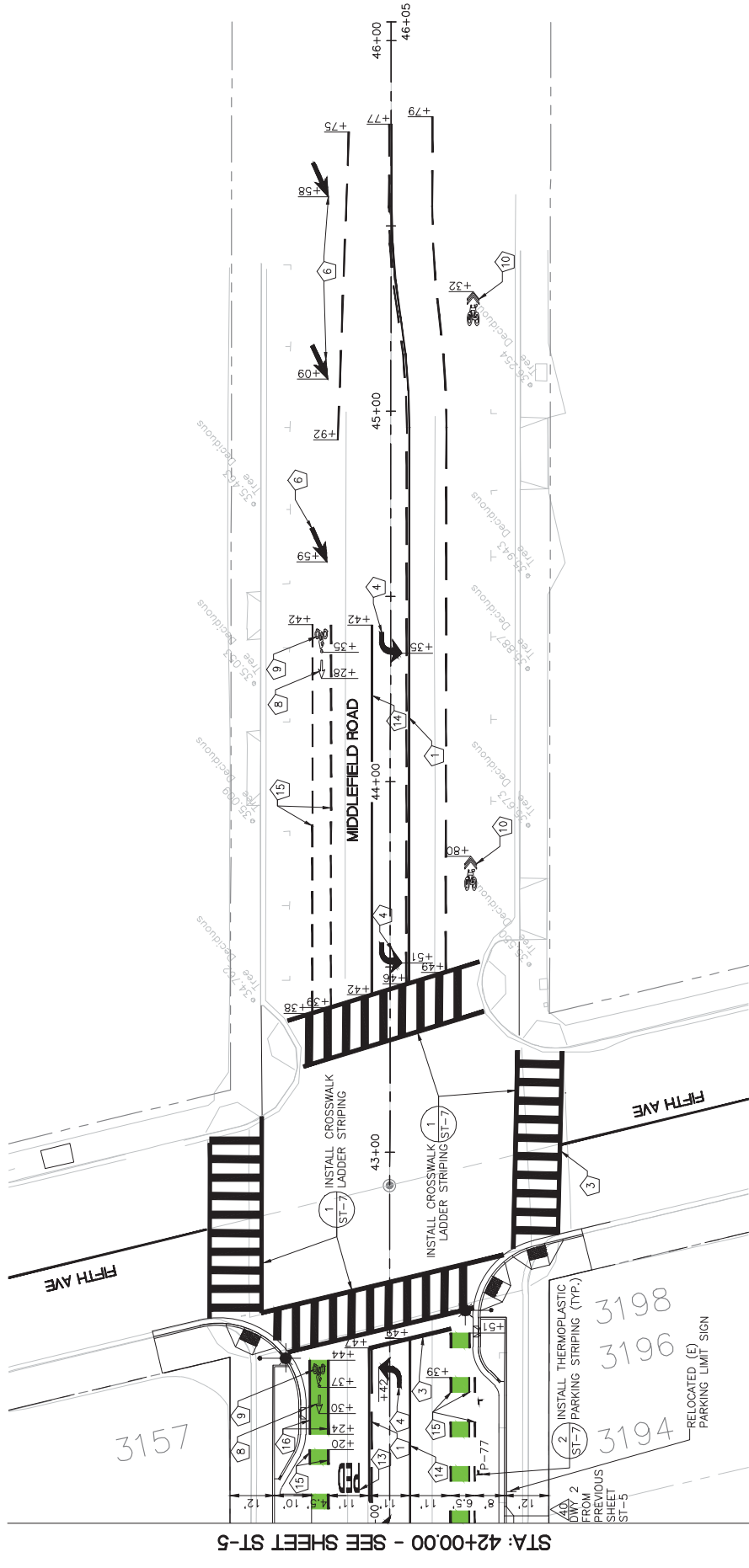
NOTES:

- FINAL LOCATION OF SIGNS, STRIPING, MARKINGS, AND PAVEMENT MARKERS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
- SEE SHEETS ST-7 AND ST-8 FOR SIGNING AND STRIPING DETAILS.

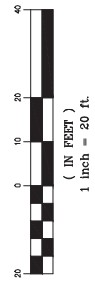
- | | | |
|--|--|--|
| <ol style="list-style-type: none"> INSTALL DETAIL 32 (STATE DETAIL SHEET A20B) INSTALL "STOP" LEGEND (STATE DETAIL SHEET A24D) INSTALL 12" WHITE THERMOPLASTIC STRIPING INSTALL LEFT TURN ARROW (STATE TYPE IV) INSTALL RIGHT TURN ARROW (STATE TYPE IV) INSTALL RIGHT LANE DROP ARROW (STATE TYPE VI) INSTALL STRAIGHT ARROW (STATE TYPE I (10)) INSTALL BIKE LANE ARROW (STATE DETAIL SHEET A24A) INSTALL BIKE LANE SYMBOL WITH PERSON (STATE DETAIL ON SHEET A24C) | <ol style="list-style-type: none"> INSTALL SHARED ROADWAY BICYCLE MARKING (STATE DETAIL ON SHEET A24C) INSTALL RAILROAD CROSSING SYMBOL (STATE DETAIL ON SHEET A24B) INSTALL DETAIL 23 (STATE DETAIL SHEET A20A) INSTALL "RED XING" LEGEND (STATE DETAIL SHEET A24D) INSTALL DETAIL 38 (STATE DETAIL SHEET A20D) INSTALL DETAIL 39A (STATE DETAIL SHEET A20D) INSTALL DETAIL 39 (STATE DETAIL SHEET A20D) INSTALL 4" WHITE THERMOPLASTIC STRIPING (STATE DETAIL ON SHEET A24E) INSTALL 4" WHITE THERMOPLASTIC DIAGONAL STRIPING ANGLED AT 45 DEGREES AND 3' INTERVALS | <ol style="list-style-type: none"> INSTALL TYPE III (B) ARROW (STATE DETAIL ON SHEET A24B) INSTALL "ONLY" LEGEND (STATE DETAIL A24E) |
|--|--|--|

LEGEND:

- | | |
|---|---|
| <ol style="list-style-type: none"> REMOVE AND REPLACE EXISTING STREET SIGN AND STOP SIGN (TYPE RT) | <p>P-1 PARKING STALL NO.</p> <p>DRIVEWAY NUMBER</p> <p>DWY-18 DRIVEWAY LOCATION AND WIDTH</p> |
|---|---|



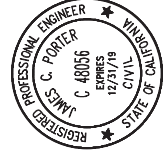
KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

	DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
	CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
	DRAWN BY: EA	SIGNING AND STRIPING PLAN	FILE NO: 1/XXXX
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES			ST-6 SHEET X OF X

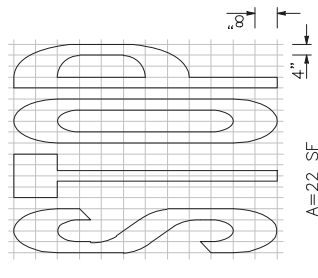
APPROVED:



DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

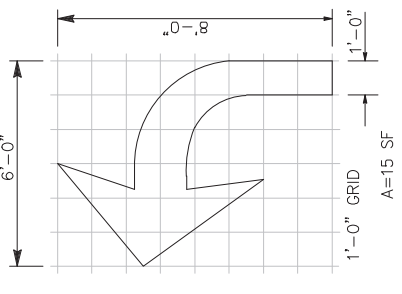
FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETSCAPE\000_CAD\SHEETS\SIGNING AND STRIPING PLAN\ST-7_SIGNING & STRIPING.DWG (ST-7)



4 **STOP LEGEND**
NOT TO SCALE

NOTE:

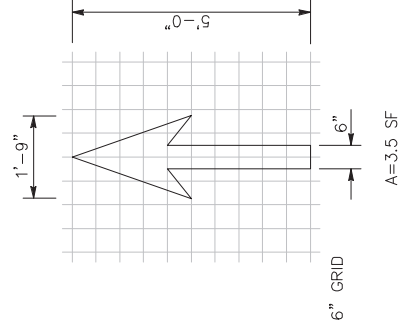
- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24D



5 **TYPE IV (L) ARROW**
NOT TO SCALE

NOTES:

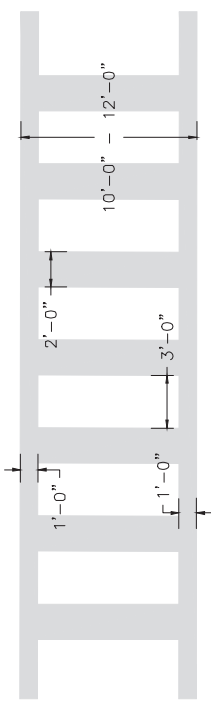
- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24A
- 2. FOR TYPE IV (R) ARROW, USE MIRROR IMAGE
- 3. MINOR VARIATIONS IN DIMENSIONS MAY BE ACCEPTED BY THE ENGINEER



6 **BIKE LANE ARROW**
NOT TO SCALE

NOTE:

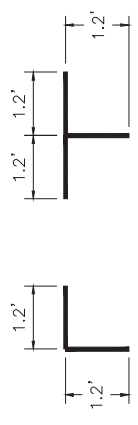
- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24A



1 **CROSSWALK LADDER DETAIL**
NOT TO SCALE

NOTES:

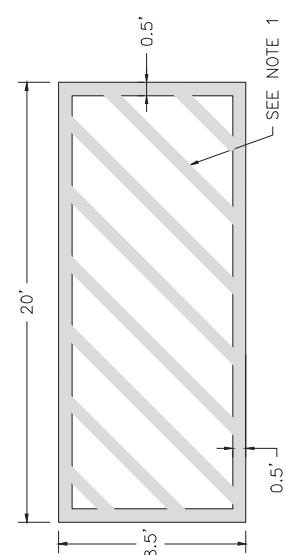
- 1. SPACES BETWEEN MARKINGS MUST BE PLACED IN WHEEL TRACKS OF EACH LANE
- 2. SPACINGS NOT TO EXCEED 2.5 TIMES WIDTH OF LONGITUDINAL LINE
- 3. ALL CROSSWALK MARKINGS MUST BE WHITE EXCEPT THOSE NEAR SCHOOLS MUST BE YELLOW



2 **THERMOPLASTIC PARKING STRIPING (TYP.)**
NOT TO SCALE

NOTES:

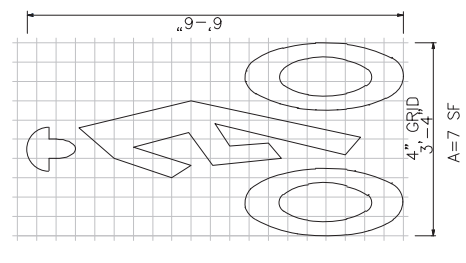
- 1. STRIPING SHALL BE 4" WIDE WHITE THERMOPLASTIC



3 **NO PARKING STRIPING (TYP.)**
NOT TO SCALE

NOTES:

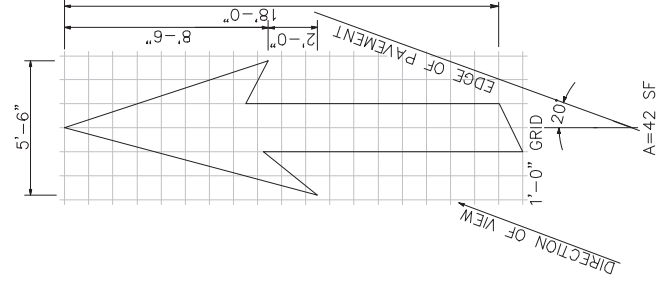
- 1. NO PARKING STRIPING UTILIZED AFTER BUS STOP ZONES
- 2. INTERIOR STRIPING SHALL BE 45° 4" WIDE WHITE THERMOPLASTIC AT 3' MAXIMUM CENTERS



7 **BIKE LANE SYMBOL WITH PERSON**
NOT TO SCALE

NOTE:

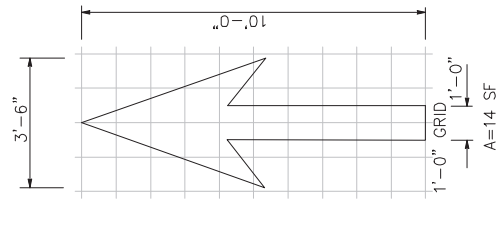
- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24C



8 **TYPE VI RIGHT LANE DROP ARROW**
NOT TO SCALE

NOTES:

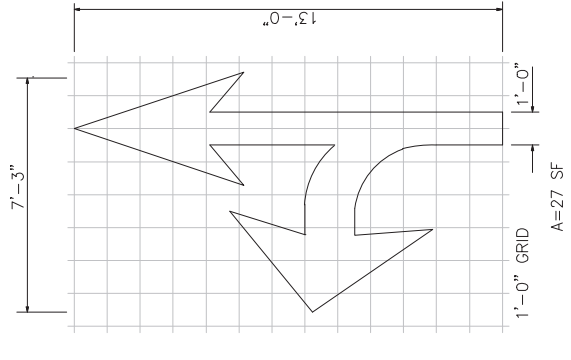
- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24A
- 2. MINOR VARIATIONS IN DIMENSIONS MAY BE ACCEPTED BY THE ENGINEER



9 **TYPE I 10'-0" STRAIGHT ARROW**
NOT TO SCALE

NOTES:

- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24A
- 2. MINOR VARIATIONS IN DIMENSIONS MAY BE ACCEPTED BY THE ENGINEER



10 **TYPE VII THROUGH (L) TURN ARROW**
NOT TO SCALE

NOTES:

- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24A
- 2. FOR TYPE II (R) ARROW, USE MIRROR IMAGE
- 3. MINOR VARIATIONS IN DIMENSIONS MAY BE ACCEPTED BY THE ENGINEER

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

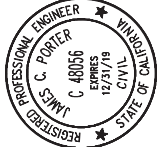


DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	SIGNING AND STRIPING DETAILS	FILE NO: 1/XXXX
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
REVISION	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

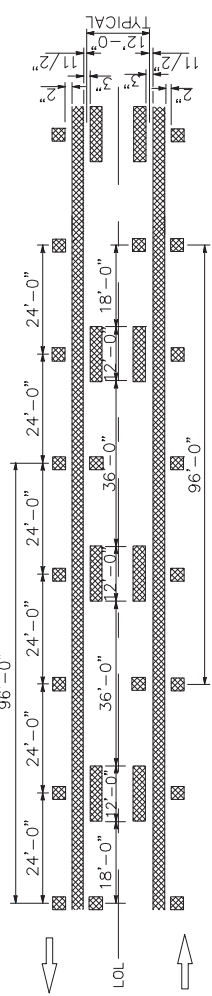
ST-7
SHEET X OF X

APPROVED:



DATE: _____
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\SIGNING AND STRIPING PLAN\ST-8_SIGNING & STRIPING.DWG (ST-8)

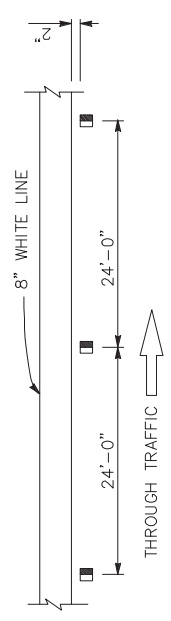


1 TWO-WAY LEFT TURN LANES DETAIL 32

ST-8 NOT TO SCALE

NOTE:

- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A20B



2 CHANNELIZING LINE DETAIL 38

ST-8 NOT TO SCALE

NOTE:

- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A20D
- 2. MARKERS TYPE G ONE-WAY CLEAR RETROREFLECTIVE

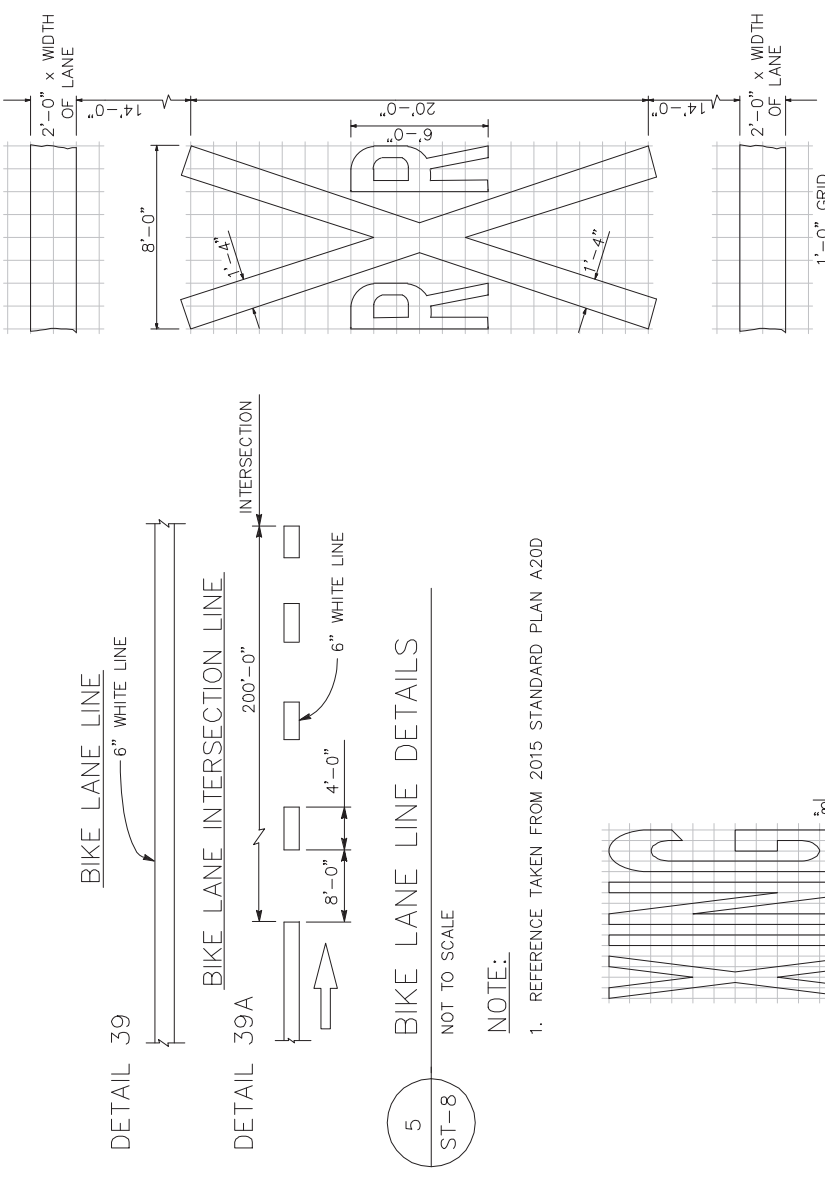


4 NO PASSING ZONES-TWO DIRECTION DETAIL 23

ST-8 NOT TO SCALE

NOTE:

- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A20A

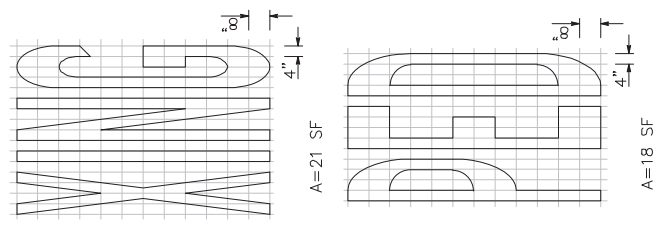


5 BIKE LANE LINE DETAILS

ST-8 NOT TO SCALE

NOTE:

- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A20D

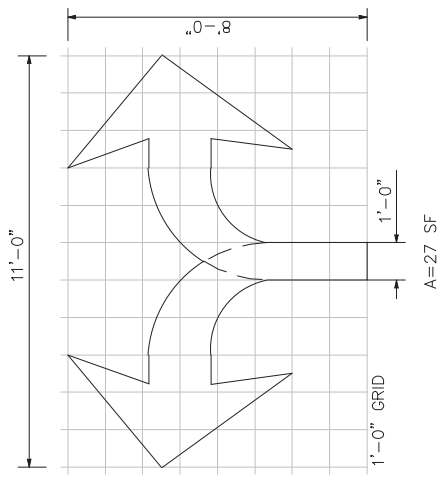


6 PED XING LEGEND

ST-8 NOT TO SCALE

NOTE:

- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24D

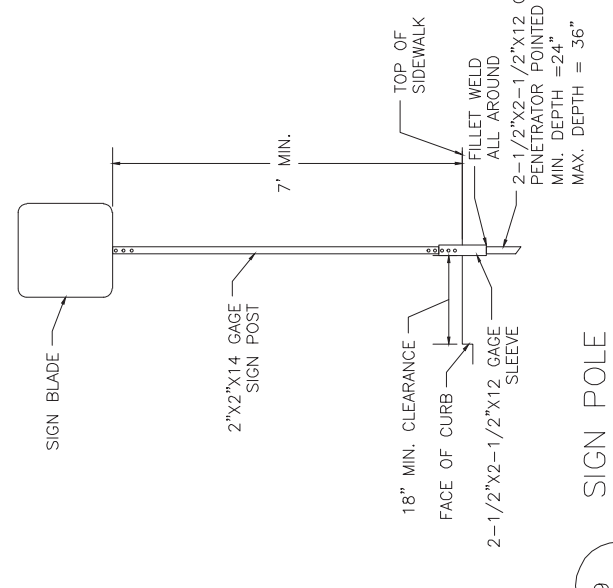


8 TYPE III (B) MODIFIED ARROW

ST-8 NOT TO SCALE

NOTE:

- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24B
- 2. MINOR VARIATIONS IN DIMENSIONS MAY BE ACCEPTED BY THE ENGINEER.



9 SIGN POLE

ST-8 NOT TO SCALE

NOTE:

- 1. CUT POST TO MEET SPECIFIED HEIGHT

7 RAILROAD CROSSING SYMBOL

ST-8 NOT TO SCALE

NOTE:

- 1. REFERENCE TAKEN FROM 2015 STANDARD PLAN A24B
- 2. 70 SF DOES NOT INCLUDE THE 2'-0" X VARIABLE WIDTH TRANSVERSE LINES

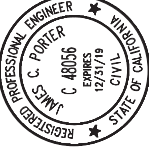


DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	SIGNING AND STRIPING DETAILS	FILE NO: 1/XXXX
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
DATE	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063

NOTES:

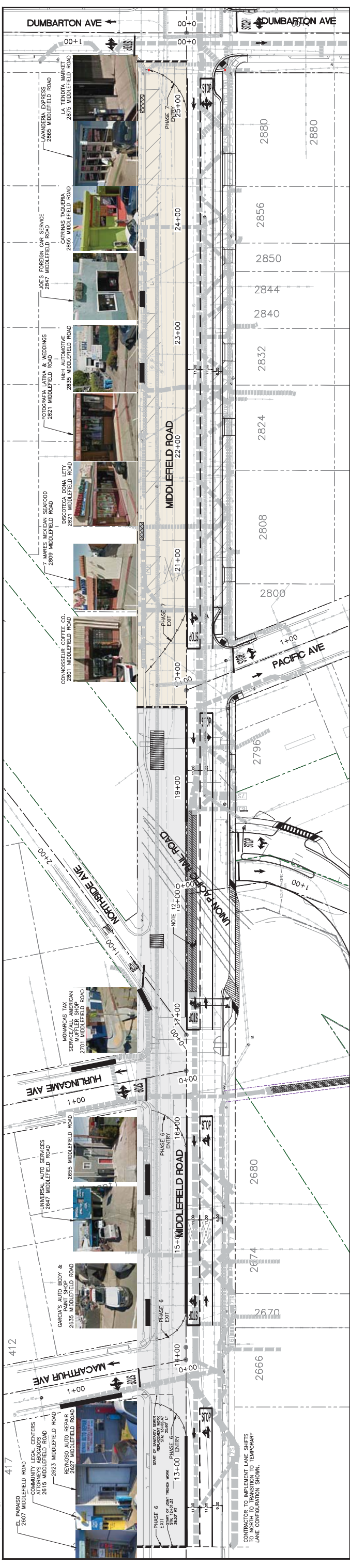
- CONSTRUCTION PHASING & TRAFFIC HANDLING PLANS DO NOT SHOW ALL WORK REQUIRED TO BE COMPLETED.
- THE CONTRACTOR'S WORK HOURS SHALL BE BETWEEN 7:00 AM TO 6:00 PM MONDAY THROUGH FRIDAY AND 8:00 AM TO 5:00 PM ON SATURDAYS. CONSTRUCTION IS NOT ALLOWED ON SUNDAYS, THANKSGIVING, OR CHRISTMAS.
- REMOVE ALL CONFLICTING PAVEMENT MARKINGS AND STRIPING AT EACH PHASE. COVER EXISTING CONFLICTING ROADSIDE SIGNS.
- CONTRACTOR SHALL CONSTRUCT IMPROVEMENTS IN PHASES AND PROVIDE PEDESTRIAN, CUSTOMER VEHICLE SERVICE AND DELIVERY VEHICLES ACCESS TO AFFECTED BUSINESSES FOR EACH PHASE OF CONSTRUCTION. ANY WORK THAT OBSTRUCTS ENTRY TO BUSINESS SHALL BE RESTORED WITHIN 24 CONSECUTIVE HOURS.
- DURING CONSTRUCTION OF PHASES 1 AND 2, CONTRACTOR TO PLACE K-RAILS WITH PRIVACY SCREENS 3' EAST OF THE MIDDLEFIELD ROAD ROW CENTERLINE TO SEPARATE CONSTRUCTION ZONE FROM VEHICULAR TRAFFIC.
- DURING CONSTRUCTION OF PHASES 6 AND 7, CONTRACTOR TO PLACE K-RAIL ON THE MIDDLEFIELD ROAD ROW CENTERLINE TO ALLOW CONTRACTOR ACCESS TO JOINT TRENCH CROSSINGS INSTALLED ON WEST SIDE DURING PHASES 1 AND 2.
- SIGNAGE WILL BE POSTED AT THE APPROACHING END OF ALL CONSTRUCTION ZONES DIRECTING DELIVERY TRUCKS AND CUSTOMERS OF VEHICLE SERVICE BUSINESSES TO ACCESS/ENTRY POINTS WITH FLAGGERS.
- THE FLAGGERS WILL CONTROL ACCESS TO DELIVERY TRUCKS AND VEHICLE SERVICE BUSINESS CUSTOMERS.
- TRUCKS AND VEHICLE SERVICE BUSINESS CUSTOMERS MOVEMENT OUT OF THE CONSTRUCTION ZONE WILL BE DIRECTED BY CONTRACTOR FLAGGERS TO MERGE BACK ONTO TRAFFIC AT 4 WAY STOP CONDITION AT NEXT INTERSECTION.
- SEE SHEET TH-4 FOR TYPICAL CONSTRUCTION PHASE LAYOUT AND ADDITIONAL NOTES.
- CONTRACTOR TO FIRST CONSTRUCT SOUTHERN PORTION OF REDWOOD JUNCTION DRIVEWAY UTILIZING THE EXISTING DRIVEWAY TO MANAGE TRAFFIC.

- ONCE CONSTRUCTION OF SOUTHERN PORTION OF REDWOOD JUNCTION DRIVEWAY IS COMPLETED, CONTRACTOR TO CONSTRUCT MIDDLE PORTION OF DRIVEWAY AND MANAGE TRAFFIC BY UTILIZING THE EXISTING NORTHERN LANE OF THE DRIVEWAY FOR INBOUND TRAFFIC AND SHIFTING OUTBOUND TRAFFIC TO NEWLY CONSTRUCTED DRIVEWAY.
- ONCE CONSTRUCTION OF MIDDLE PORTION OF REDWOOD JUNCTION DRIVEWAY IS COMPLETED, CONTRACTOR TO CONSTRUCT NORTHERN PORTION OF DRIVEWAY AND MANAGE TRAFFIC BY UTILIZING THE NEWLY CONSTRUCTED DRIVEWAY FOR BOTH INBOUND AND OUTBOUND TRAFFIC.
- SEE SHEET TH-5 FOR DETAIL AND ADDITIONAL NOTES FOR CONSTRUCTION PHASING AND TRAFFIC HANDLING OF REDWOOD JUNCTION DRIVEWAY.
- CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO COUNTY OF SAN MATEO FOR APPROVAL PRIOR TO CONSTRUCTION.

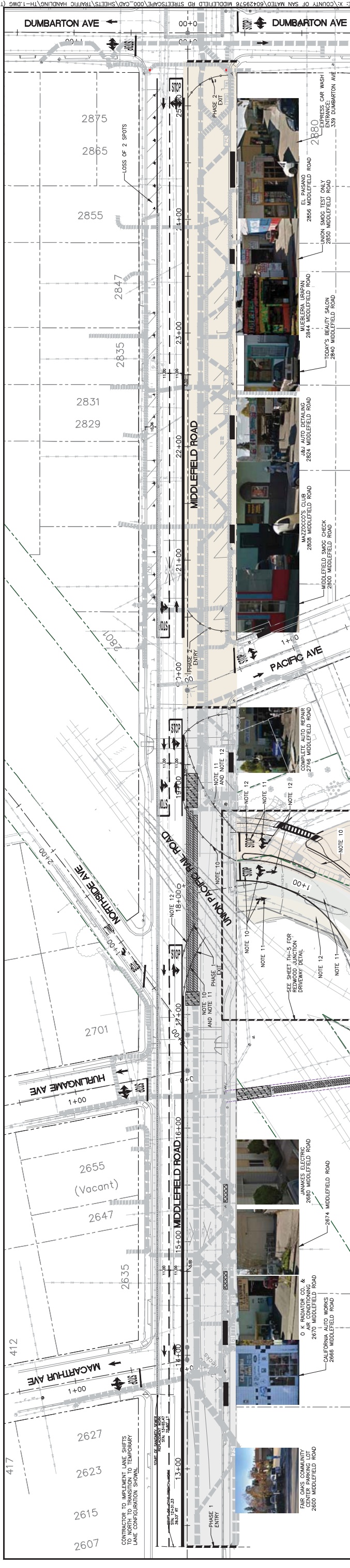
APPROVED: 

DATE: _____

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



MACARTHUR AVE TO PACIFIC AVE - PHASE 6



PACIFIC AVE TO DUMBARTON AVE - PHASE 7

MACARTHUR AVE TO PACIFIC AVE - PHASE 1

PACIFIC AVE TO DUMBARTON AVE - PHASE 2

LEGEND:

- CONSTRUCTION PHASE EXTENT
- K-RAIL
- CONSTRUCTION PHASE EXTENT
- JOINT TRENCH MAJOR
- JOINT TRENCH MINOR
- AUTO REPAIR BUSINESS
- BUSINESS REQUIRING DELIVERY TRUCK ACCESS
- SANITARY SEWER REPLACEMENT
- SANITARY SEWER JACK AND BORE PITS
- DIRECTIONAL DRILLING PITS
- TUBULAR MARKERS

DESIGNED BY: AB
CHECKED BY: TS
DRAWN BY: AB

COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
CONSTRUCTION PHASING & TRAFFIC HANDLING PLAN

DATE: 04-06-2018
FILE NO: 1/XXXX

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

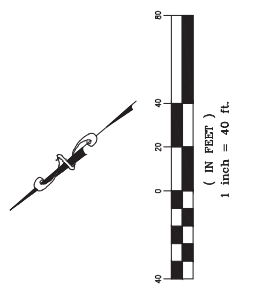
REVISION DATE

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

1 2 3 4

1" = 40 FT.

TH-1
SHEET X OF X

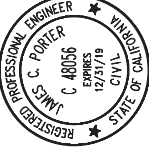


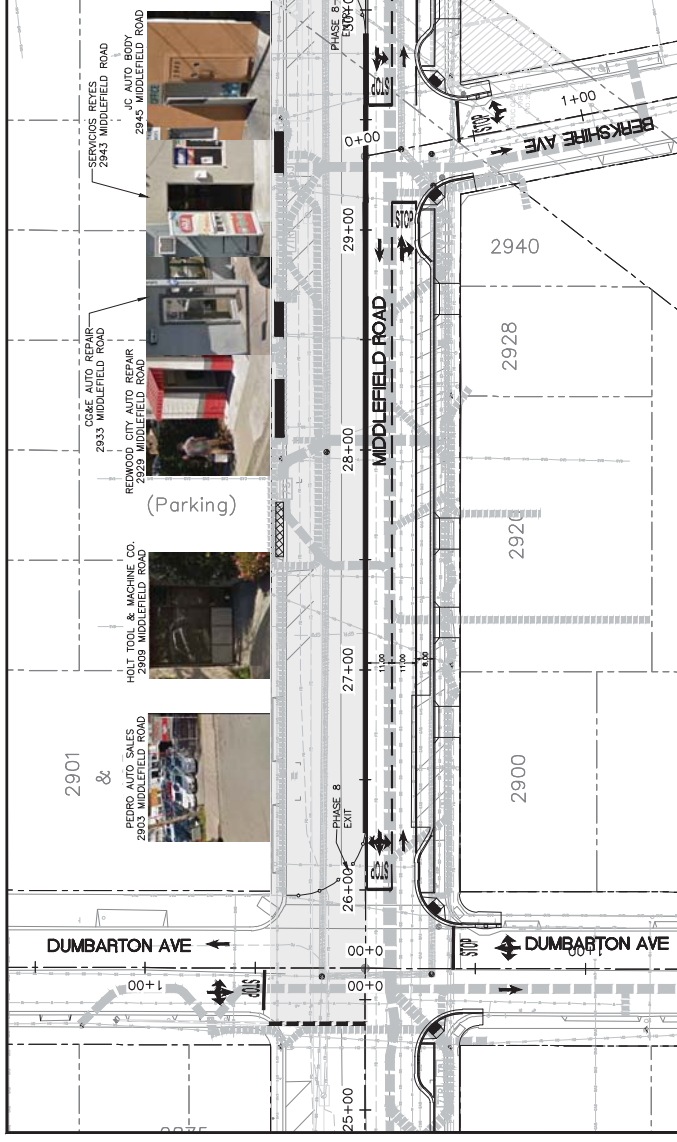
PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETSCAPE\000_CAD\SHEETS\TRAFFIC HANDLING\TH-1.DWG (TH-1)

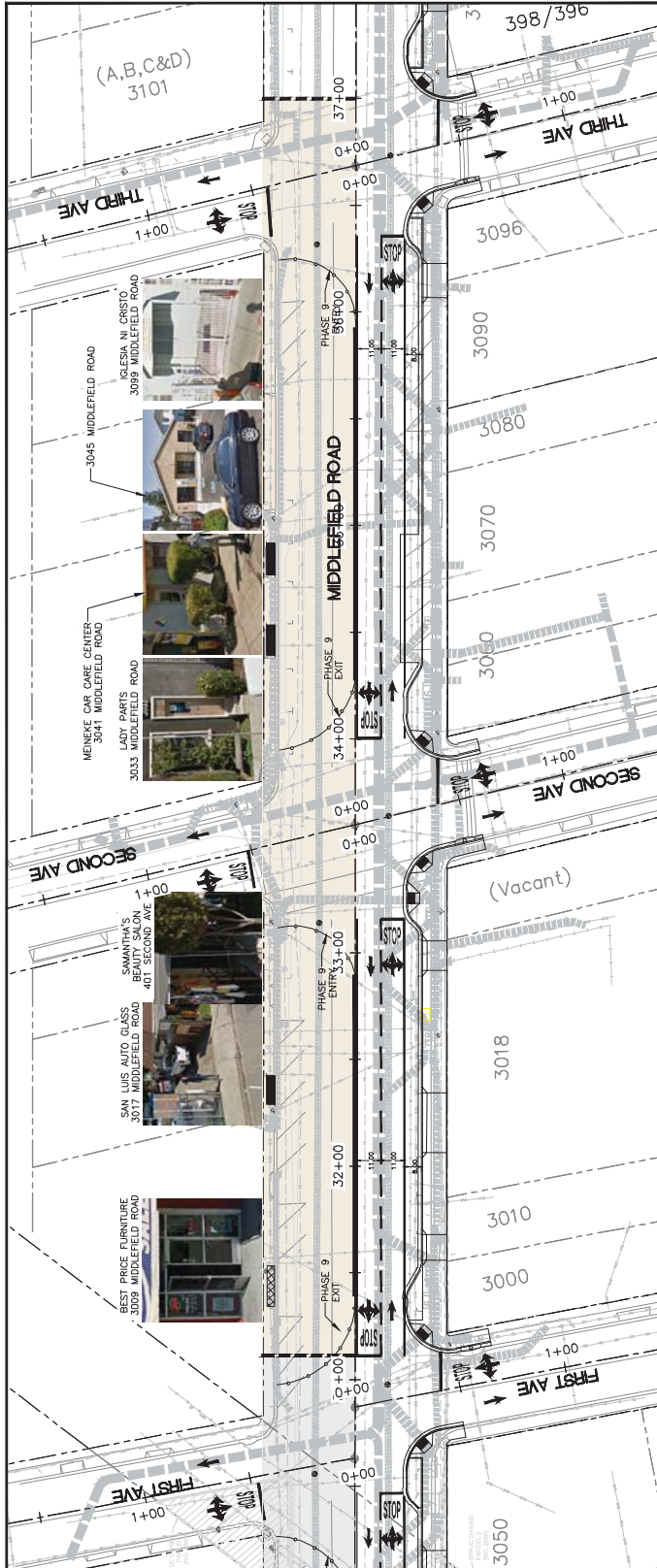
NOTES:

- CONSTRUCTION PHASING & TRAFFIC HANDLING PLANS DO NOT SHOW ALL WORK REQUIRED TO BE COMPLETED.
- THE CONTRACTOR'S WORK HOURS SHALL BE BETWEEN 7:00 AM TO 6:00 PM MONDAY THROUGH FRIDAY AND 9:00 AM TO 5:00 PM SATURDAYS. CONSTRUCTION IS NOT ALLOWED ON SUNDAYS, THANKSGIVING, OR CHRISTMAS.
- REMOVE ALL CONFLICTING PAVEMENT MARKINGS AND STRIPING AT EACH PHASE. COVER EXISTING CONFLICTING ROADSIDE SIGNS.
- CONTRACTOR SHALL CONSTRUCT IMPROVEMENTS IN PHASES AND PROVIDE PEDESTRIAN, CUSTOMER VEHICLE SERVICE AND DELIVER VEHICLES ACCESS TO AFFECTED BUSINESSES FOR EACH PHASE OF CONSTRUCTION. NIGHT WORK THAT OBSTRUCTS ENTRY TO BUSINESS SHALL BE RESTORED WITHIN 24 CONSECUTIVE HOURS.
- DURING CONSTRUCTION OF PHASES 3 AND 4, CONTRACTOR TO PLACE K-RAILS WITH PRIVACY SCREENS 3' EAST OF THE MIDDLEFIELD ROAD ROW CENTERLINE TO SEPARATE CONSTRUCTION ZONE FROM VEHICULAR TRAFFIC.
- DURING CONSTRUCTION OF PHASES 8 AND 9, CONTRACTOR TO PLACE K-RAIL ON THE MIDDLEFIELD ROAD ROW CENTERLINE TO ALLOW CONTRACTOR ACCESS TO JOINT TRENCH CROSSINGS INSTALLED ON WEST SIDE DURING PHASES 3 AND 4.
- SIGNAGE WILL BE POSTED AT THE APPROACHING END OF ALL CONSTRUCTION ZONES DIRECTING DELIVERY TRUCKS AND CUSTOMERS OF VEHICLE SERVICE BUSINESSES TO ACCESS/ENTRY POINTS WITH FLAGGERS.
- THE FLAGGERS WILL CONTROL ACCESS TO DELIVERY TRUCKS AND VEHICLE SERVICE BUSINESS CUSTOMERS.
- DURING CONSTRUCTION OF PHASES 3 AND 4, CONTRACTOR TO PLACE K-RAILS WITH PRIVACY SCREENS 3' EAST OF THE MIDDLEFIELD ROAD ROW CENTERLINE TO SEPARATE CONSTRUCTION ZONE FROM VEHICULAR TRAFFIC.
- SEE SHEET TH-4 FOR TYPICAL CONSTRUCTION PHASE LAYOUT AND ADDITIONAL NOTES.
- CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO COUNTY OF SAN MATEO FOR APPROVAL PRIOR TO CONSTRUCTION.

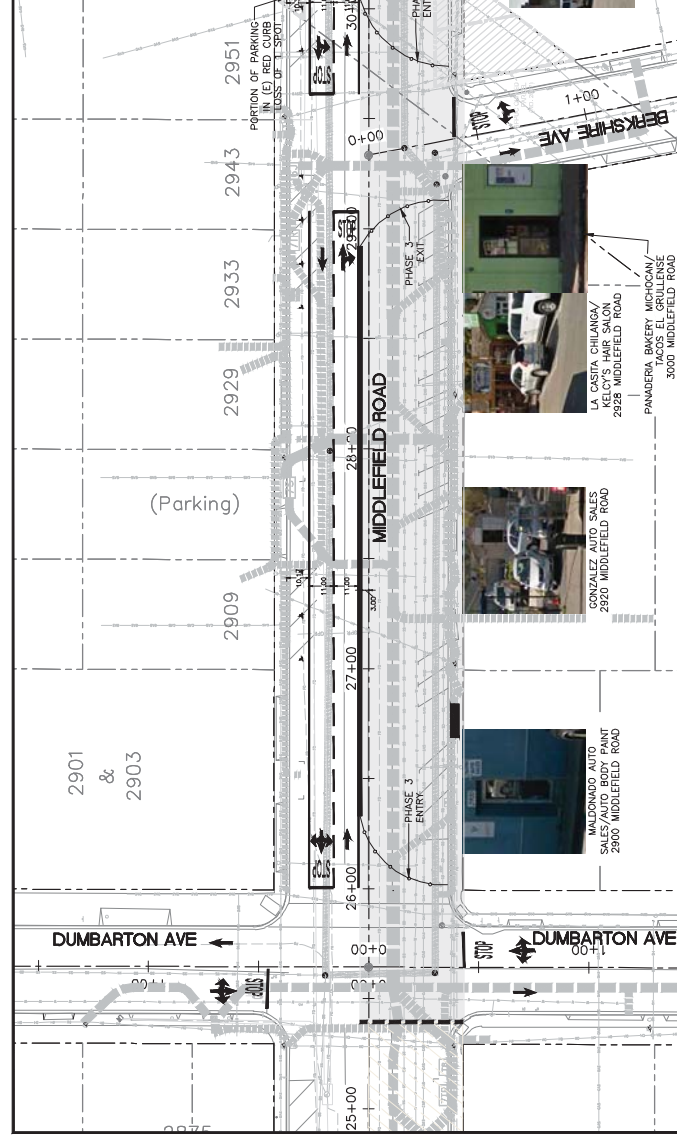
APPROVED:  JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



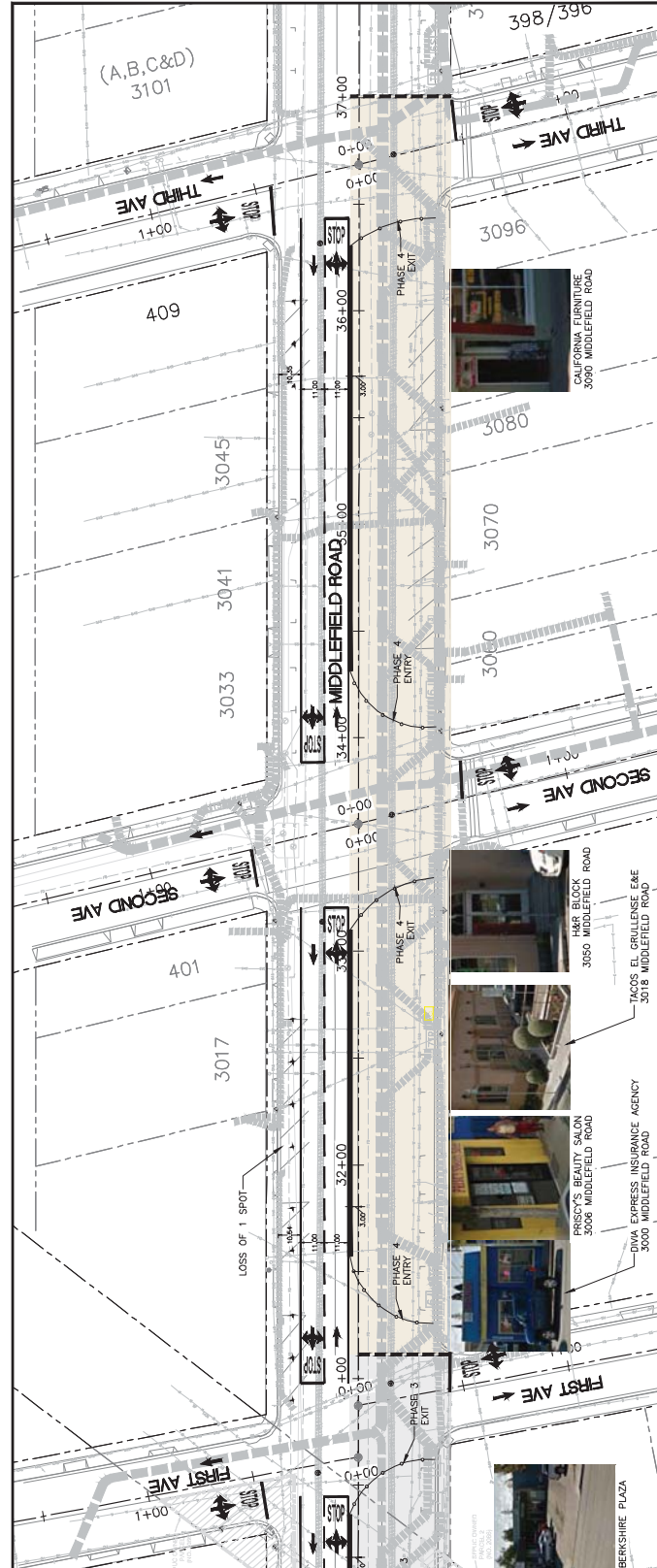
DUMBARTON AVE TO FIRST AVE - PHASE 8



FIRST AVE TO THIRD AVE - PHASE 9











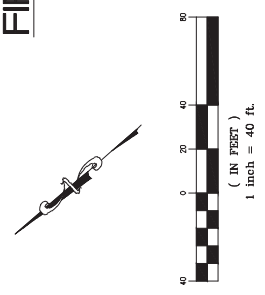
DUMBARTON AVE TO FIRST AVE - PHASE 3



FIRST AVE TO THIRD AVE - PHASE 4

LEGEND:

-  CONSTRUCTION PHASE EXTENT
-  K-RAIL
-  JOINT TRENCH MAJOR
-  JOINT TRENCH MINOR
-  AUTO REPAIR BUSINESS
-  BUSINESS REQUIRING DELIVERY
-  SANITARY SEWER REPLACEMENT
-  TUBULAR MARKERS



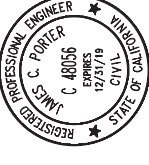

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	CONSTRUCTION PHASING & TRAFFIC HANDLING PLAN	FILE NO.: 1/XXXX
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
		SAN MATEO COUNTY
		555 COUNTY CENTER, 5TH FLOOR
		REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		TH-2
		SHEET X OF X

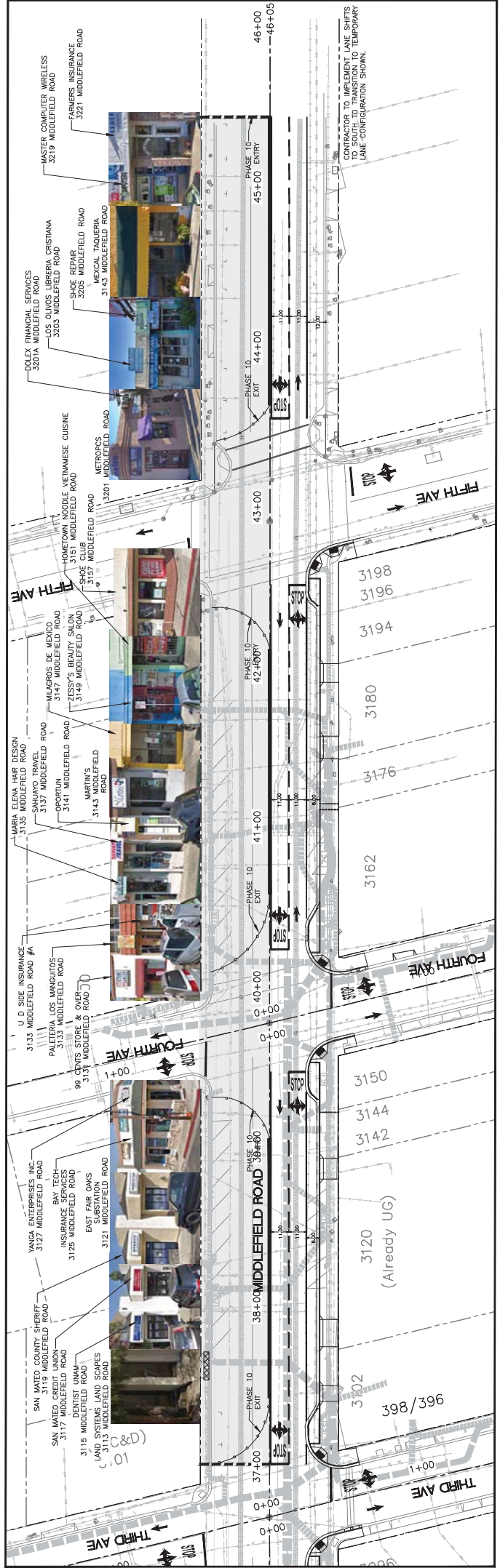
NOTES:

1. CONSTRUCTION PHASING & TRAFFIC HANDLING PLANS DO NOT SHOW ALL WORK REQUIRED TO BE COMPLETED.
2. THE CONTRACTOR'S WORK HOURS SHALL BE BETWEEN 7:00 AM TO 6:00 PM MONDAY THROUGH FRIDAY AND 9:00 AM TO 5:00 PM SATURDAYS. CONSTRUCTION IS NOT ALLOWED ON SUNDAYS, THANKSGIVING, OR CHRISTMAS.
3. REMOVE ALL CONFLICTING PAVEMENT MARKINGS AND STRIPING AT EACH PHASE. COVER EXISTING CONFLICTING ROADSIDE SIGNS.
4. CONTRACTOR SHALL CONSTRUCT IMPROVEMENTS IN PHASES AND PROVIDE PEDESTRIAN, CUSTOMER VEHICLE SERVICE, AND DELIVERY VEHICLES ACCESS TO AFFECTED BUSINESSES FOR EACH PHASE OF CONSTRUCTION. ANY WORK THAT OBSTRUCTS ENTRY TO BUSINESS SHALL BE RESTORED WITHIN 24 CONSECUTIVE HOURS.
5. DURING CONSTRUCTION OF PHASE 5, CONTRACTOR TO PLACE K-RAILS WITH PRIVACY SCREENS 3' EAST OF THE MIDDLEFIELD ROAD ROW CENTERLINE TO SEPARATE CONSTRUCTION ZONE FROM VEHICULAR TRAFFIC.
6. DURING CONSTRUCTION OF PHASE 10, CONTRACTOR TO PLACE K-RAIL ON THE MIDDLEFIELD ROAD CENTERLINE TO ALLOW CONTRACTOR ACCESS TO JOINT TRENCH CROSSINGS INSTALLED ON WEST SIDE DURING PHASE 5.
7. SIGNAGE WILL BE POSTED AT THE APPROACHING END OF ALL CONSTRUCTION ZONES DIRECTING DELIVERY TRUCKS AND CUSTOMERS OF VEHICLE SERVICE BUSINESSES TO ACCESS/ENTRY POINTS WITH FLAGGERS.
8. THE FLAGGERS WILL CONTROL ACCESS TO DELIVERY TRUCKS AND VEHICLE SERVICE BUSINESS CUSTOMERS.
9. TRUCKS AND VEHICLE SERVICE BUSINESS CUSTOMERS MOVEMENT OUT OF THE CONSTRUCTION ZONE WILL BE DIRECTED BY CONTRACTOR FLAGGERS TO MERGE BACK ONTO TRAFFIC AT 4 WAY STOP CONDITION AT NEXT INTERSECTION.
10. SEE SHEET TH-4 FOR TYPICAL CONSTRUCTION PHASE LAYOUT AND ADDITIONAL NOTES.
11. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO COUNTY OF SAN MATEO FOR APPROVAL PRIOR TO CONSTRUCTION.

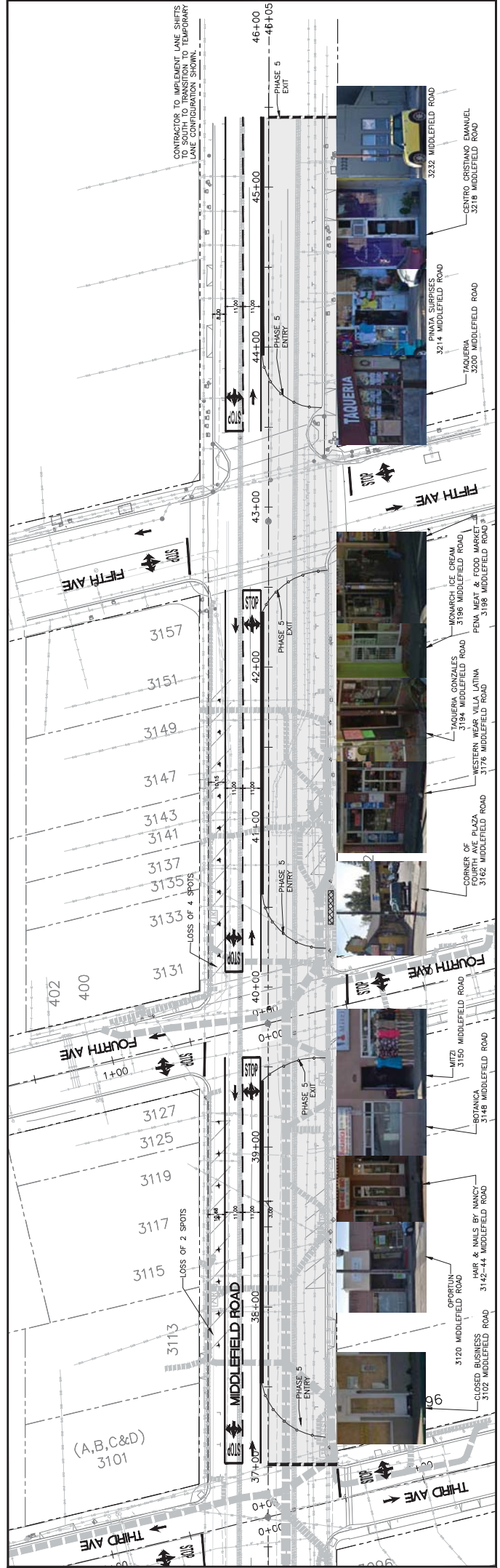
APPROVED:



DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2019



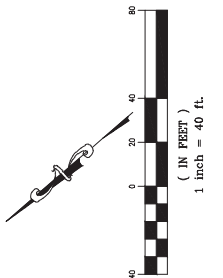
THIRD AVE TO FIFTH AVE- PHASE 10



THIRD AVE TO FIFTH AVE - PHASE 5

LEGEND:

- CONSTRUCTION PHASE EXTENT
- K-RAIL
- JOINT TRENCH MAJOR
- JOINT TRENCH MINOR
- AUTO REPAIR BUSINESS
- BUSINESS REQUIRING DELIVERY TRUCK ACCESS
- SANITARY SEWER REPLACEMENT
- TUBULAR MARKERS



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

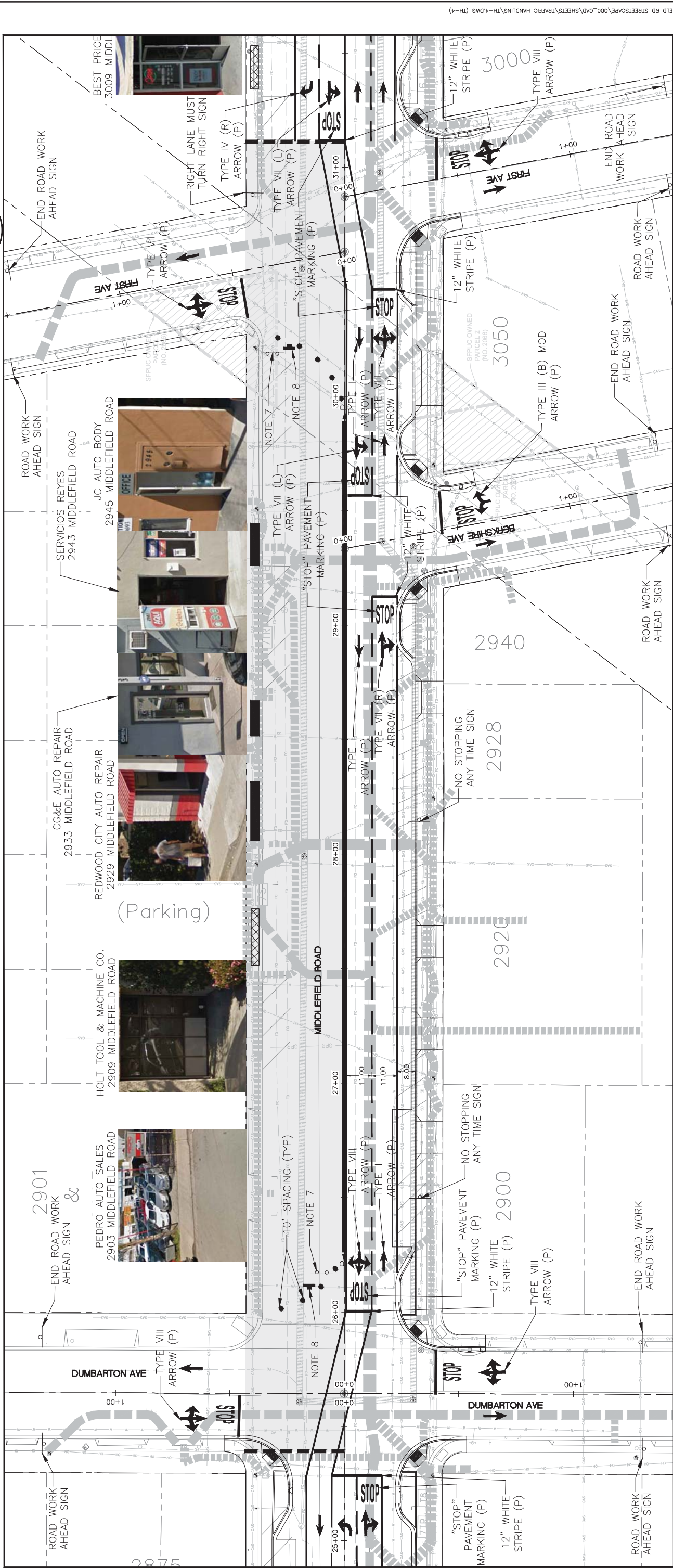
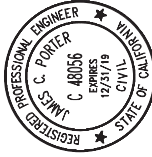
DESIGNED BY: AB		COUNTY OF SAN MATEO		SCALE: AS SHOWN
CHECKED BY: TS		MIDDLEFIELD ROAD IMPROVEMENT PROJECT		DATE: 04-06-2018
DRAWN BY: AB		CONSTRUCTION PHASING & TRAFFIC HANDLING PLAN		FILE NO: 1/XXXX
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	SAN MATEO COUNTY	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES				TH-3 OF X



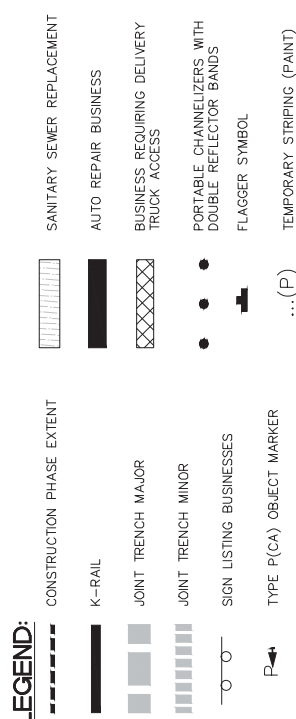
APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



TYPICAL CONSTRUCTION PHASE LAYOUT (PHASE 8)

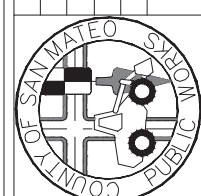


NOTES:

- CONSTRUCTION PHASING & TRAFFIC HANDLING PLANS DO NOT SHOW ALL WORK REQUIRED TO BE COMPLETED.
- THE CONTRACTOR'S WORK HOURS SHALL BE BETWEEN 7:00 AM TO 6:00 PM MONDAY THROUGH FRIDAY, AND 9:00 AM TO 5:00 PM ON SATURDAYS. CONSTRUCTION IS NOT ALLOWED ON SUNDAYS, THANKSGIVING, OR CHRISTMAS.
- REMOVE ALL CONFLICTING PAVEMENT MARKINGS AND STRIPING AT EACH PHASE. COVER EXISTING CONFLICTING ROADSIDE SIGNS.
- CONTRACTOR SHALL CONSTRUCT IMPROVEMENTS IN PHASES AND PROVIDE PEDESTRIAN, CUSTOMER VEHICLE SERVICE AND DELIVERY VEHICLES ACCESS TO AFFECTED BUSINESSES FOR EACH PHASE OF CONSTRUCTION. ANY WORK THAT OBSTRUCTS ENTRY TO BUSINESS SHALL BE RESTORED WITHIN 24 CONSECUTIVE HOURS.
- DURING CONSTRUCTION OF WEST SIDE OF MIDDLEFIELD ROAD (PHASES 1-5), CONTRACTOR TO PLACE K-RAILS WITH PRIVACY SCREENS 3' EAST OF THE MIDDLEFIELD ROAD ROW CENTERLINE TO SEPARATE CONSTRUCTION ZONE FROM VEHICULAR TRAFFIC.
- DURING CONSTRUCTION OF EAST SIDE OF MIDDLEFIELD ROAD (PHASES 6-10), CONTRACTOR TO PLACE K-RAIL ON THE MIDDLEFIELD ROAD ROW CENTERLINE TO ALLOW CONTRACTOR ACCESS TO JOINT TRENCH CROSSINGS INSTALLED ON WEST SIDE DURING PHASES 1-5.
- SIGNAGE WILL BE POSTED AT THE APPROACHING END OF ALL CONSTRUCTION ZONES DIRECTING DELIVERY TRUCKS AND CUSTOMERS OF VEHICLE SERVICE BUSINESSES TO ACCESS/ENTRY POINTS WITH FLAGGERS.
- THE FLAGGERS WILL CONTROL ACCESS BY DELIVERY TRUCKS AND VEHICLE SERVICE BUSINESS CUSTOMERS.
- DELIVERY TRUCKS AND VEHICLE SERVICE CUSTOMERS MOVEMENT OUT OF THE CONSTRUCTION ZONE WILL BE DIRECTED BY CONTRACTOR FLAGGERS TO MERGE BACK ONTO TRAFFIC AT 4 WAY STOP CONDITION AT NEXT INTERSECTION.
- DURING UNDERGROUNDING OR SANITARY SEWER LATERALS, AND SUBSEQUENT ROADWAY AND SIDEWALK REPLACEMENT CONTRACTOR TO ENSURE PEDESTRIANS HAVE CLEAR ACCESS TO BUSINESSES AND CROSS STREETS VIA TEMPORARY PEDESTRIAN WALKWAYS ON THE COMPLETED PORTIONS OF THE ROADWAY AND SIDEWALK AND/OR ACCESS RAMPS FROM THE STREET.
- IN AREAS WHERE CONSTRUCTION IS DIRECTLY IN FRONT OF BUSINESSES, CONTRACTOR TO COORDINATE WITH AFFECTED BUSINESSES TO MINIMIZE DISRUPTION THROUGH THE USE OF ALTERNATE WORK TIMES, USE OF STEEL PLATES TO TEMPORARILY COVER TRENCH AREAS AND OTHER MEASURES TO MINIMIZE DISRUPTION.
- CONTRACTOR SHALL PROVIDE PEDESTRIAN ADA-COMPLIANT WALKWAY AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN AND KEEP ALL ELECTRICAL SYSTEMS (INCLUDING TRAFFIC SIGNALS) OPERATIONAL AT ALL TIMES.
- SEE SIGNING AND STRIPING SHEETS FOR FINAL PAVEMENT STRIPING.
- FINAL STRIPING WORK SHALL BE DONE DURING OFF PEAK HOURS.
- CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO COUNTY OF SAN MATEO FOR APPROVAL PRIOR TO CONSTRUCTION.

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: AB		COUNTY OF SAN MATEO		SCALE: AS SHOWN
CHECKED BY: TS		MIDDLEFIELD ROAD IMPROVEMENT PROJECT		DATE: 04-06-2018
DRAWN BY: AB		TRAFFIC HANDLING PLAN		FILE NO.: 1/XXXX
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS		555 COUNTY CENTER, 5TH FLOOR
		SAN MATEO COUNTY		REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4		TH-4
				SHEET X OF X

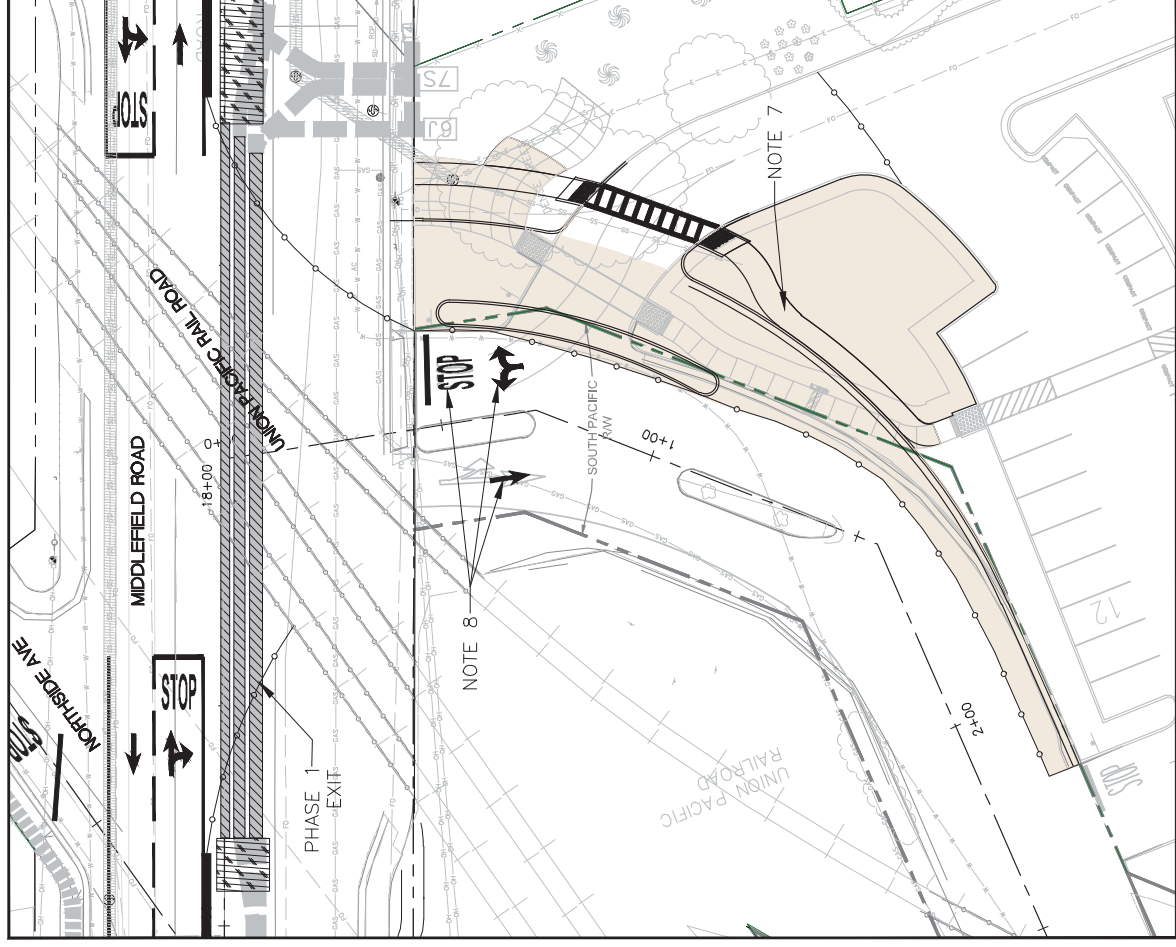
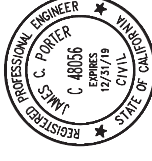


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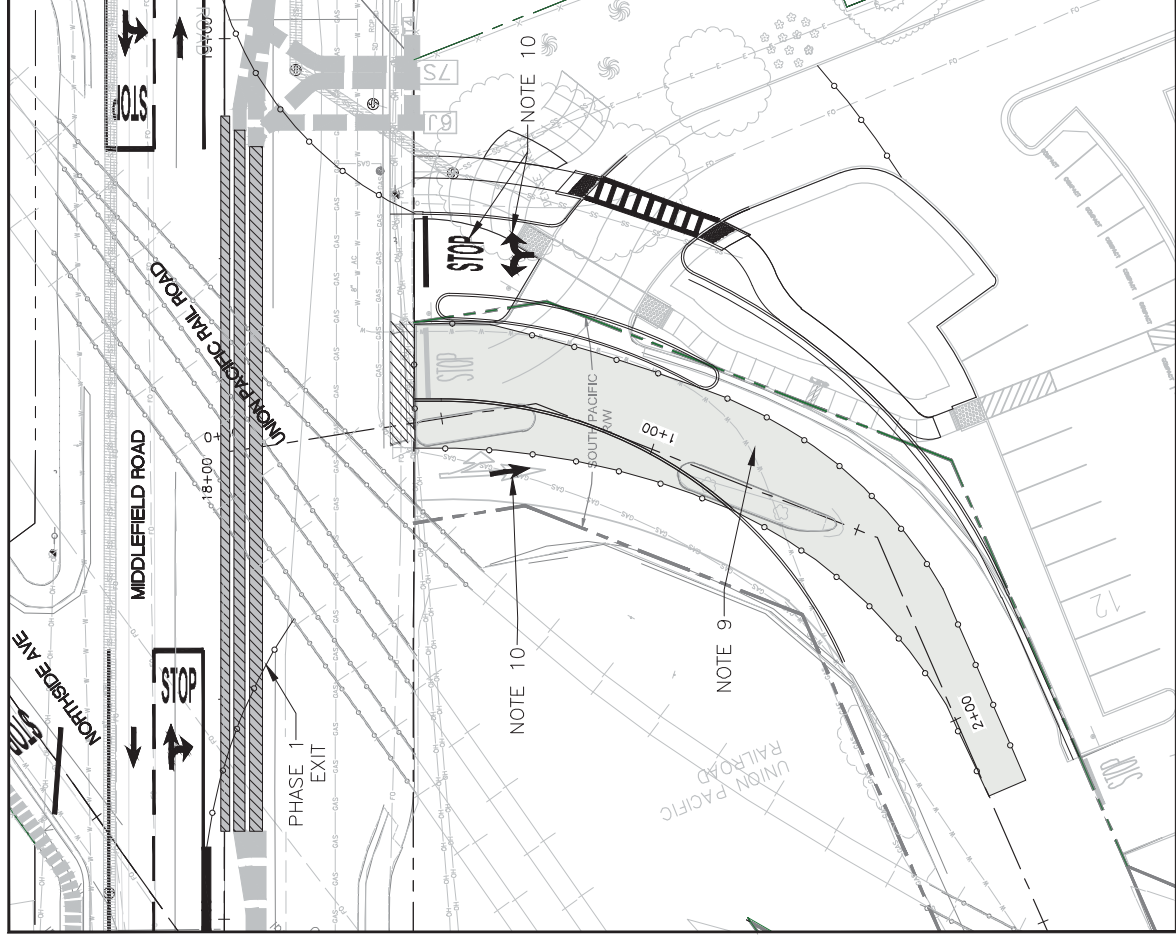
APPROVED:

DATE:

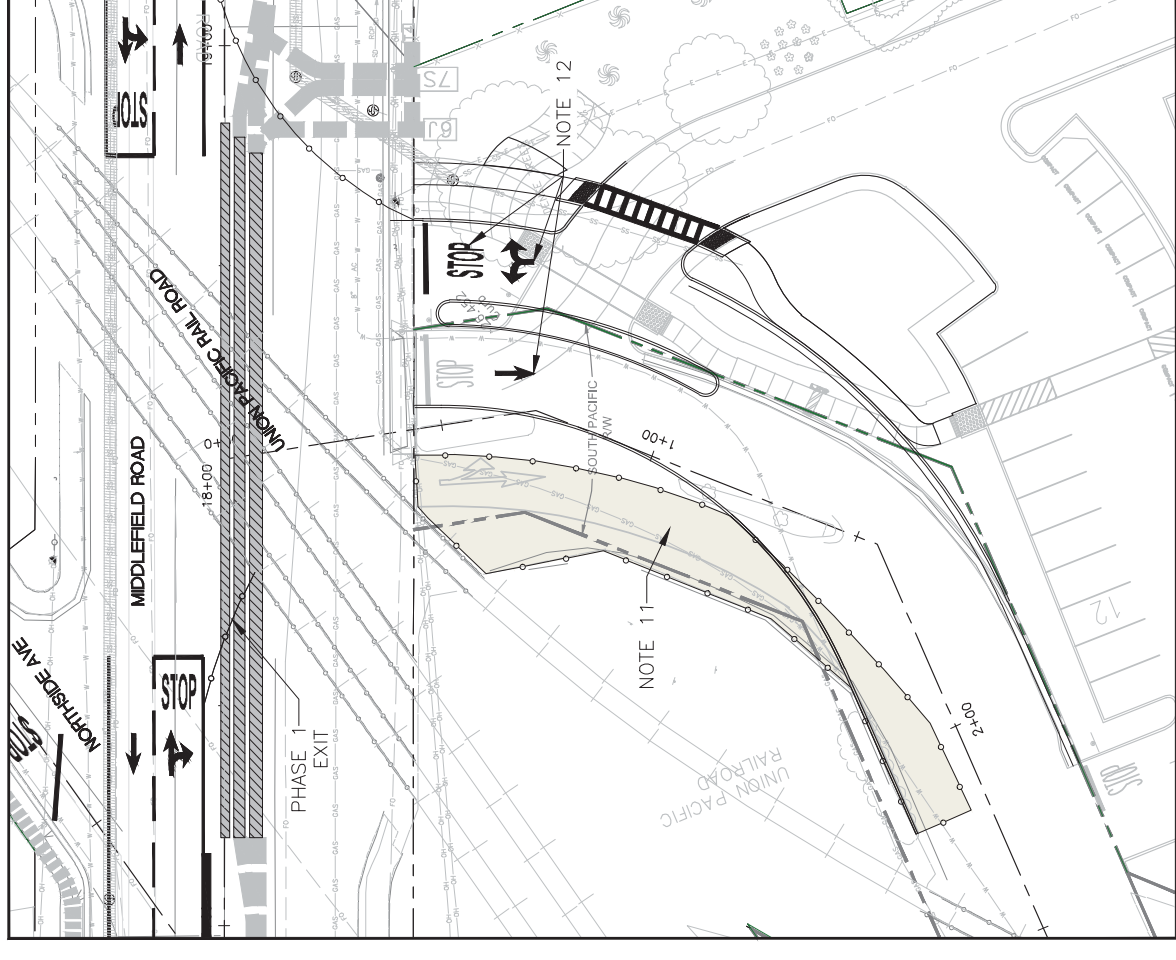
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



REDWOOD JUNCTION DRIVEWAY - PHASE 1A



REDWOOD JUNCTION DRIVEWAY - PHASE 1B



REDWOOD JUNCTION DRIVEWAY - PHASE 1C

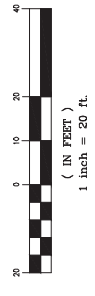
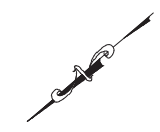
NOTES:

1. CONSTRUCTION PHASING & TRAFFIC HANDLING PLANS DO NOT SHOW ALL WORK REQUIRED TO BE COMPLETED. THE CONTRACTOR SHALL SUBMIT A TRAFFIC HANDLING AND CONSTRUCTION STAGING PLAN AS PART OF THEIR CONSTRUCTION SUBMITTALS.
2. THE CONTRACTOR'S WORK HOURS SHALL BE BETWEEN 7:00 AM TO 6:00 PM MONDAY THROUGH FRIDAY AND 9:00 AM TO 5:00 PM ON SATURDAYS. CONSTRUCTION IS NOT ALLOWED ON SUNDAYS, THANKSGIVING, OR CHRISTMAS.
3. REMOVE ALL CONFLICTING PAVEMENT MARKINGS AND STRIPING AT EACH PHASE. COVER EXISTING CONFLICTING ROADSIDE SIGNS.
4. CONTRACTOR SHALL CONSTRUCT IMPROVEMENTS IN PHASES AND PROVIDE PEDESTRIAN, CUSTOMER VEHICLE SERVICE AND DELIVERY VEHICLES ACCESS TO AFFECTED BUSINESSES FOR EACH PHASE OF CONSTRUCTION. ANY WORK THAT OBSTRUCTS ENTRY TO BUSINESS SHALL BE RESTORED WITHIN 24 CONSECUTIVE HOURS.
5. DURING CONSTRUCTION OF PHASE 1, CONTRACTOR TO PLACE K-RAILS WITH PRIVACY SCREENS 3' EAST OF THE MIDDLEFIELD ROAD ROW CENTERLINE TO SEPARATE CONSTRUCTION ZONE FROM VEHICULAR TRAFFIC.
6. CONTRACTOR TO CONSTRUCT REDWOOD JUNCTION DRIVEWAY DURING PHASE 1 AND SEPARATE WORK INTO THREE PHASES: PHASE 1A, PHASE 1B, AND PHASE 1C.
7. DURING PHASE 1A, CONTRACTOR TO CONSTRUCT SOUTHERN PORTION OF REDWOOD JUNCTION DRIVEWAY (INCLUDING CURB AND GUTTER, SIDEWALK, MEDIAN, AND BIOPRETENTION AREA).
8. DURING THE CONSTRUCTION OF PHASE 1A, CONTRACTOR SHALL MANAGE TRAFFIC AT REDWOOD JUNCTION DRIVEWAY BY UTILIZING EXISTING DRIVEWAY.
9. DURING PHASE 1B, CONTRACTOR TO CONSTRUCT THE MIDDLE PORTION OF REDWOOD JUNCTION DRIVEWAY (INCLUDING CURB AND BALLAST ROCK)

LEGEND:

- CONSTRUCTION PHASE EXTENT
- K-RAIL
- CONSTRUCTION PHASE 1A
- CONSTRUCTION PHASE 1B
- CONSTRUCTION PHASE 1C
- JOINT TRENCH MAJOR
- JOINT TRENCH MINOR
- SANITARY SEWER REPLACEMENT
- DIRECTIONAL DRILLING PITS
- TUBULAR MARKERS

10. DURING THE CONSTRUCTION OF PHASE 1B, CONTRACTOR SHALL MANAGE TRAFFIC AT REDWOOD JUNCTION DRIVEWAY BY UTILIZING THE EXISTING NORTHERN LANE OF THE DRIVEWAY FOR INBOUND TRAFFIC AND SHIFTING OUBOUND TRAFFIC TO THE NEWLY CONSTRUCTED DRIVEWAY.
11. DURING PHASE 1C, CONTRACTOR TO CONSTRUCT THE NORTHERN PORTION OF REDWOOD JUNCTION DRIVEWAY (INCLUDING CURB AND BALLAST ROCK).
12. DURING THE CONSTRUCTION OF PHASE 1C, CONTRACTOR SHALL MANAGE TRAFFIC AT REDWOOD JUNCTION DRIVEWAY BY UTILIZING THE NEWLY CONSTRUCTED DRIVEWAY FOR BOTH INBOUND AND OUTBOUND TRAFFIC.
13. SIGNAGE WILL BE POSTED AT THE APPROACHING END OF ALL CONSTRUCTION ZONES DIRECTING DELIVERY TRUCKS AND CUSTOMERS OF VEHICLE SERVICE BUSINESSES TO ACCESS/ENTRY POINTS WITH FLAGGERS.
14. THE FLAGGERS WILL CONTROL ACCESS TO DELIVERY TRUCKS AND VEHICLE SERVICE BUSINESS CUSTOMERS.
15. TRUCKS AND VEHICLE SERVICE BUSINESS CUSTOMERS MOVEMENT OUT OF THE CONSTRUCTION ZONE WILL BE DIRECTED BY CONTRACTOR FLAGGERS TO MERGE BACK ONTO TRAFFIC AT 4 WAY STOP CONDITION AT NEXT INTERSECTION.
16. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO COUNTY OF SAN MATEO FOR APPROVAL PRIOR TO CONSTRUCTION.



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION



DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	CONSTRUCTION PHASING & TRAFFIC HANDLING PLAN	FILE NO.: 1/XXXX
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
DATE	SAN MATEO COUNTY	

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

TH-5
SHEET X OF X

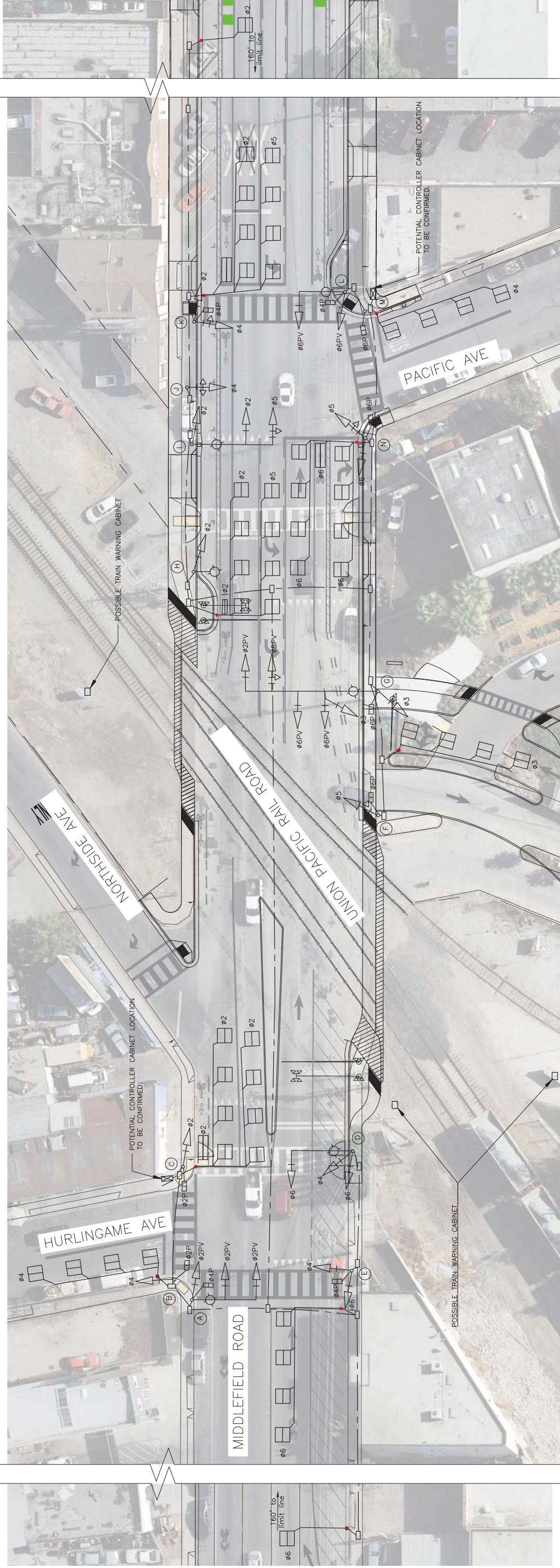
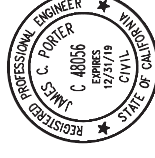
FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHETS\TRAFFIC HANDLING\TH-5.DWG (TH-5)

PROPOSED DESIGN WITH TWO CABINETS

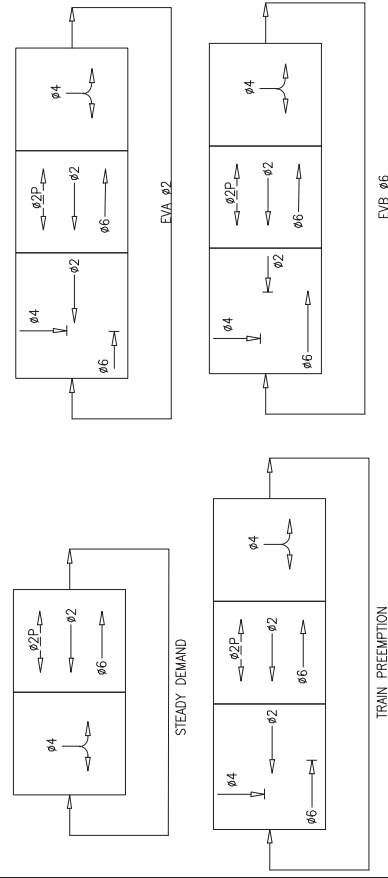
APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

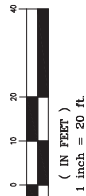


PROPOSED PHASE DIAGRAM

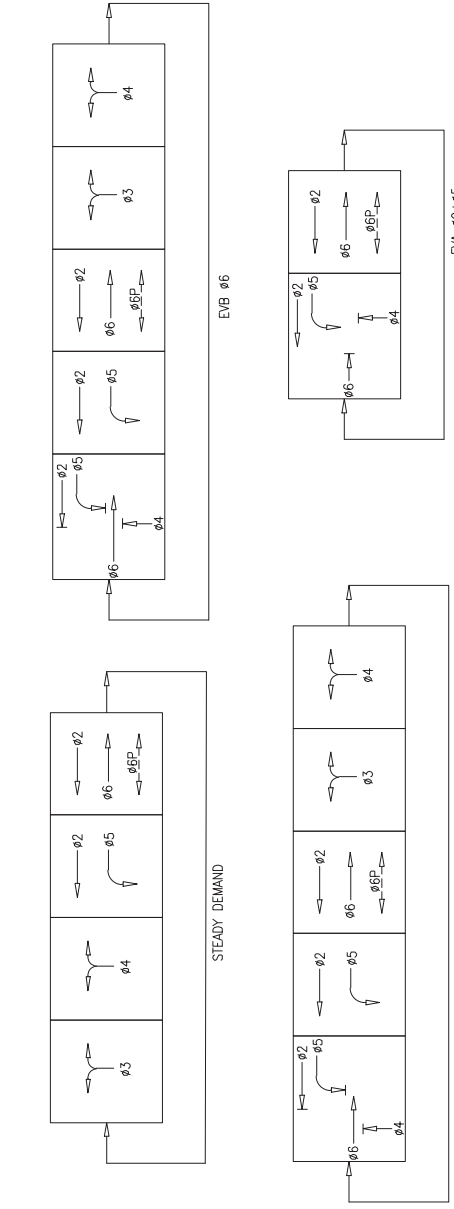


POLE AND EQUIPMENT SCHEDULE

LOCATION	STANDARD			VEH SIGNAL MOUNTING	PED SIGNAL MOUNTING	PPB	HPS LUMINAIRE (WATTS)
	TYPE	SIG. M.A. (FEET)	LUM. M.A. (FEET)				
(A)	19A-3-100	30'	15'	MAS	SV-1-T	4	200W
(B)	TYPE 1-B	-	-	-	TV-1-T	2	
(C)	TYPE 1-B	-	-	-	TV-1-T	2	
(D)	19A-1-100	30'	15'	MAS	SV-1-T	4	200W
(E)	TYPE 1-B	-	-	-	TV-2-T	4	
(F)	TYPE 1-B	-	-	-	TV-1-T	6	
(G)	29A-5-100	55'	15'	MAS	SV-1-T	6	200W
(H)	15TS	-	15'	-	SV-1-T		200W
(I)	TYPE 1-B	35'	15'	-	SV-1-T		200W
(J)	TYPE 1-B	-	-	-	TV-1-T		
(K)	TYPE 1-B	-	-	-	TV-2-T	4	
(L)	17A-2-100	20'	15'	MAS	SV-1-T	4	200W
(M)	TYPE 1-B	-	-	-	TP-1-T	6	
(N)	TYPE 1-B	-	-	-	TV-2-T	6	



PROPOSED PHASE DIAGRAM



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION



DESIGNED BY: EA	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 12-5-2017
DRAWN BY: TS	TRAFFIC SIGNAL	FILE NO: 1/XXXX
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
REVISION	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063

TS-1

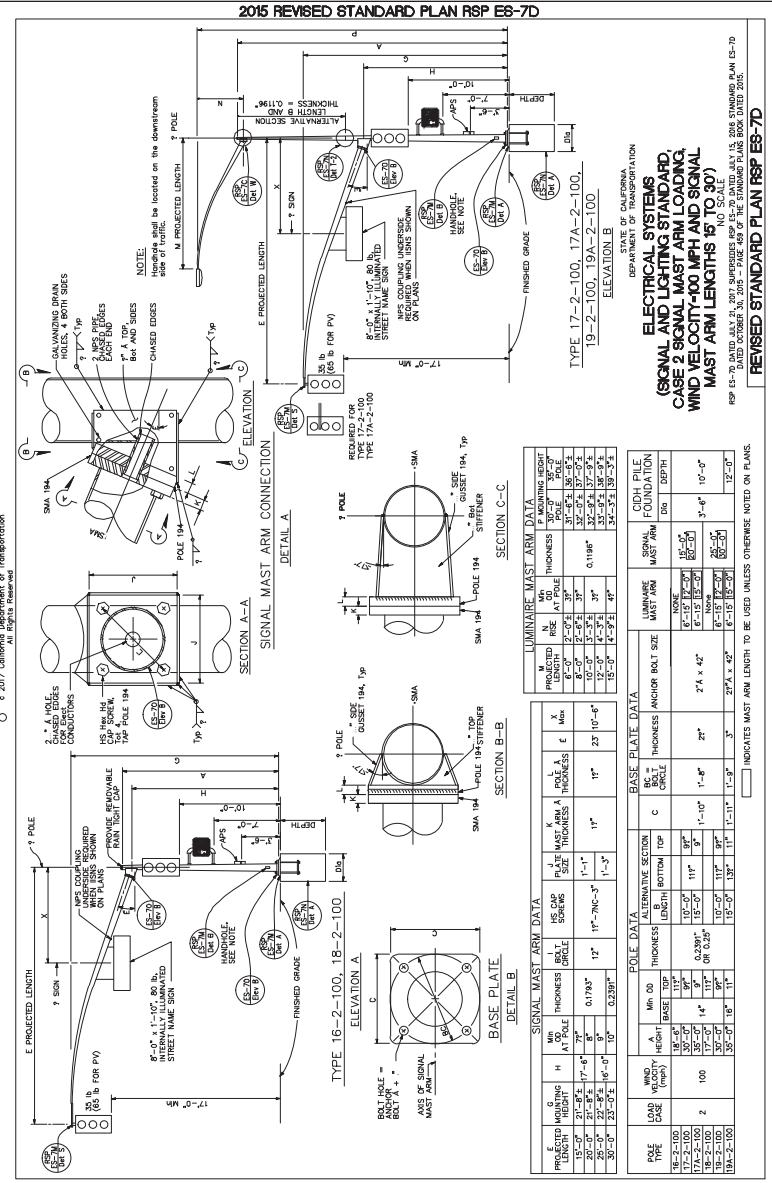
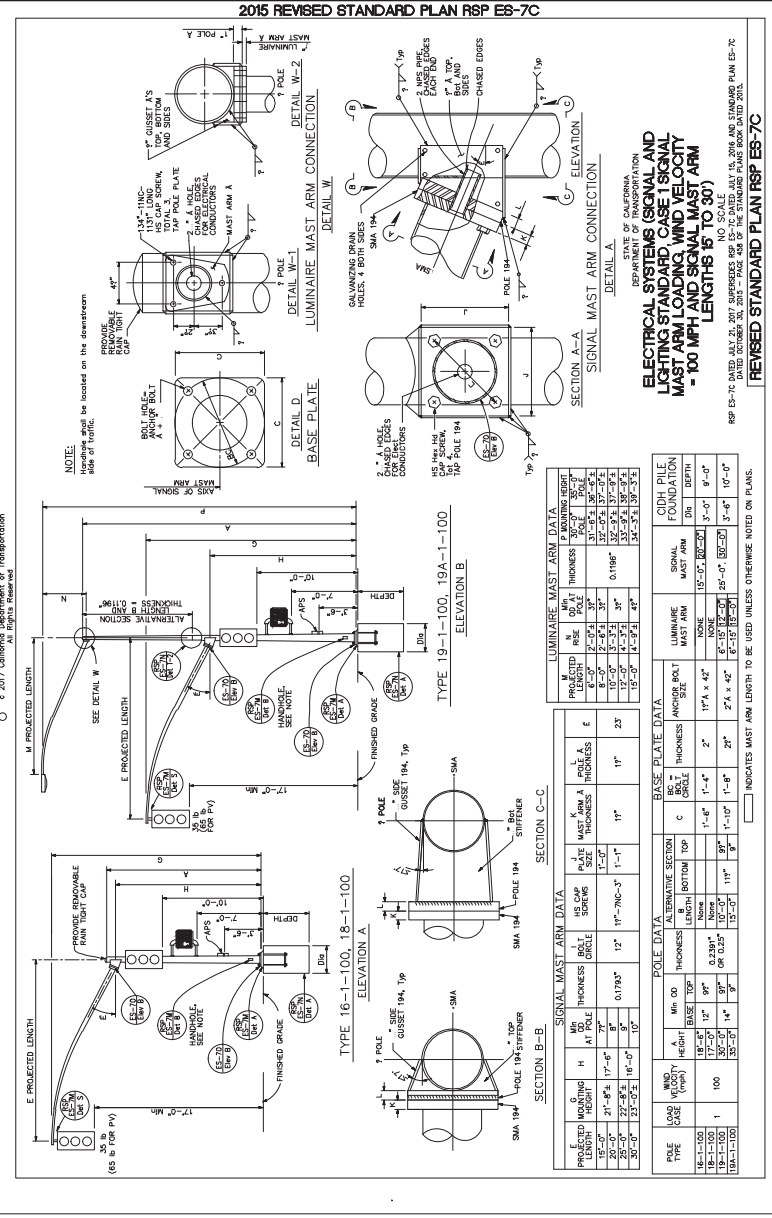
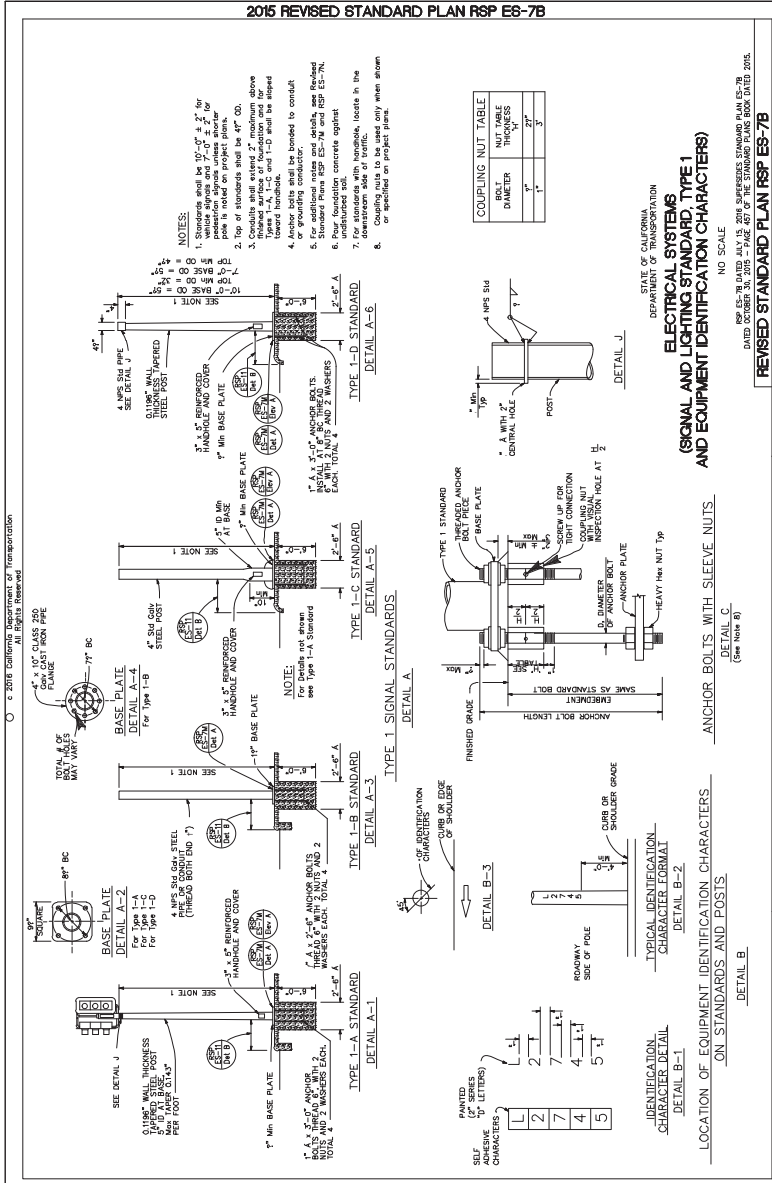
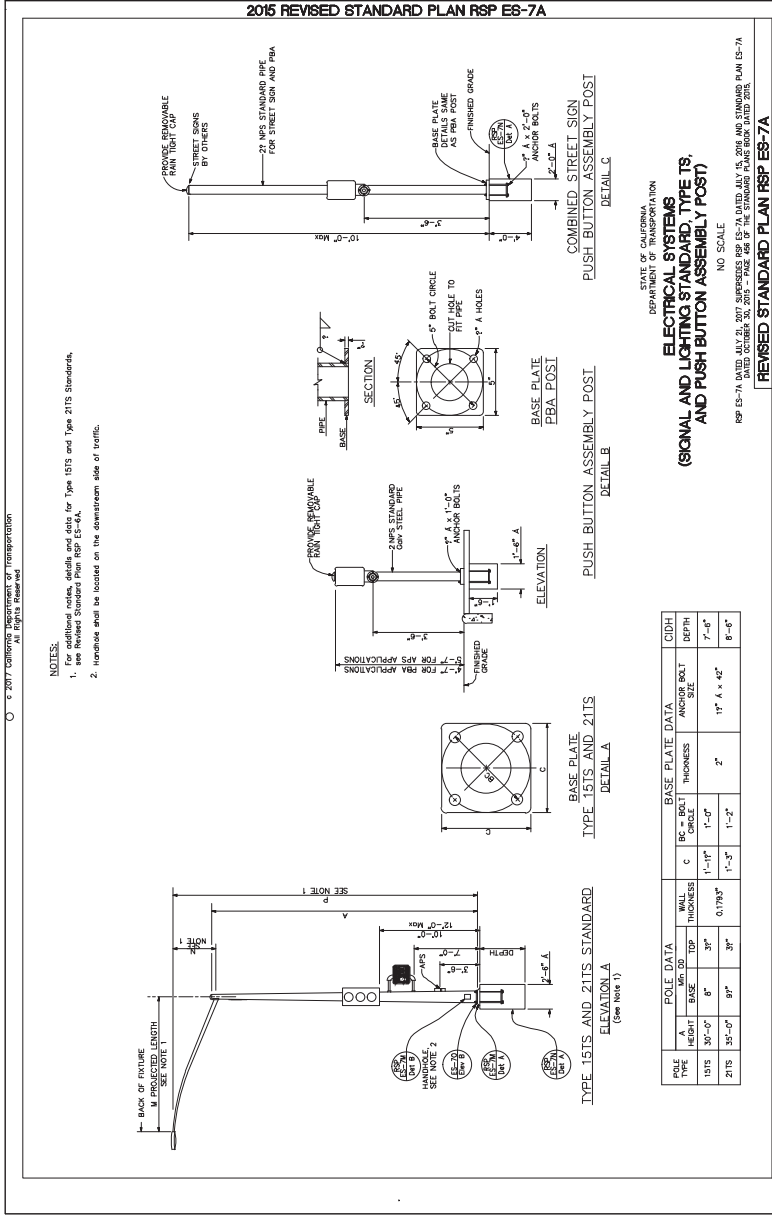
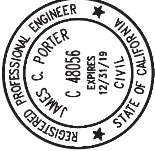
SHEET X OF X

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\ELECTRIC\LTZ.DWG (0-SIZE)

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
POLE DETAILS

DESIGNED BY: EA
CHECKED BY: TS
DRAWN BY: EA

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY

555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

SCALE: AS SHOWN
DATE: 11-17-2017
FILE NO: 1/XXXX

REVISION

DATE

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

TS-2
SHEET X OF X

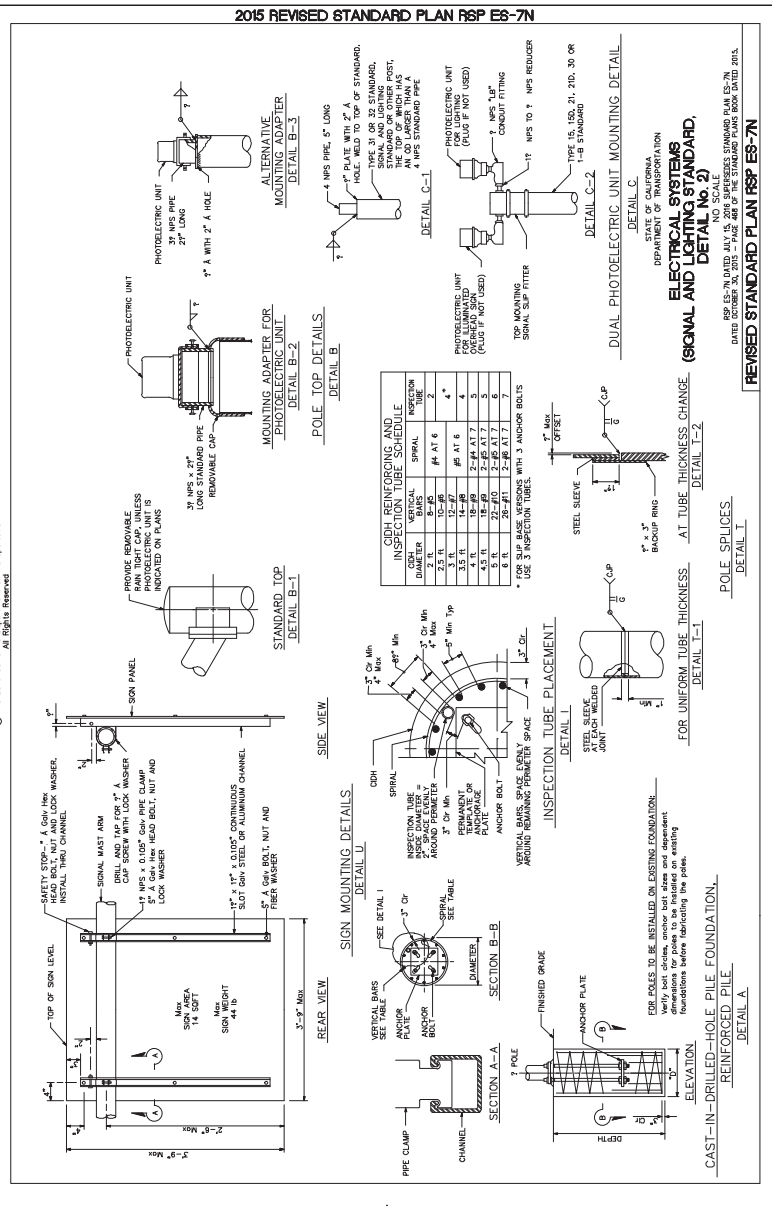
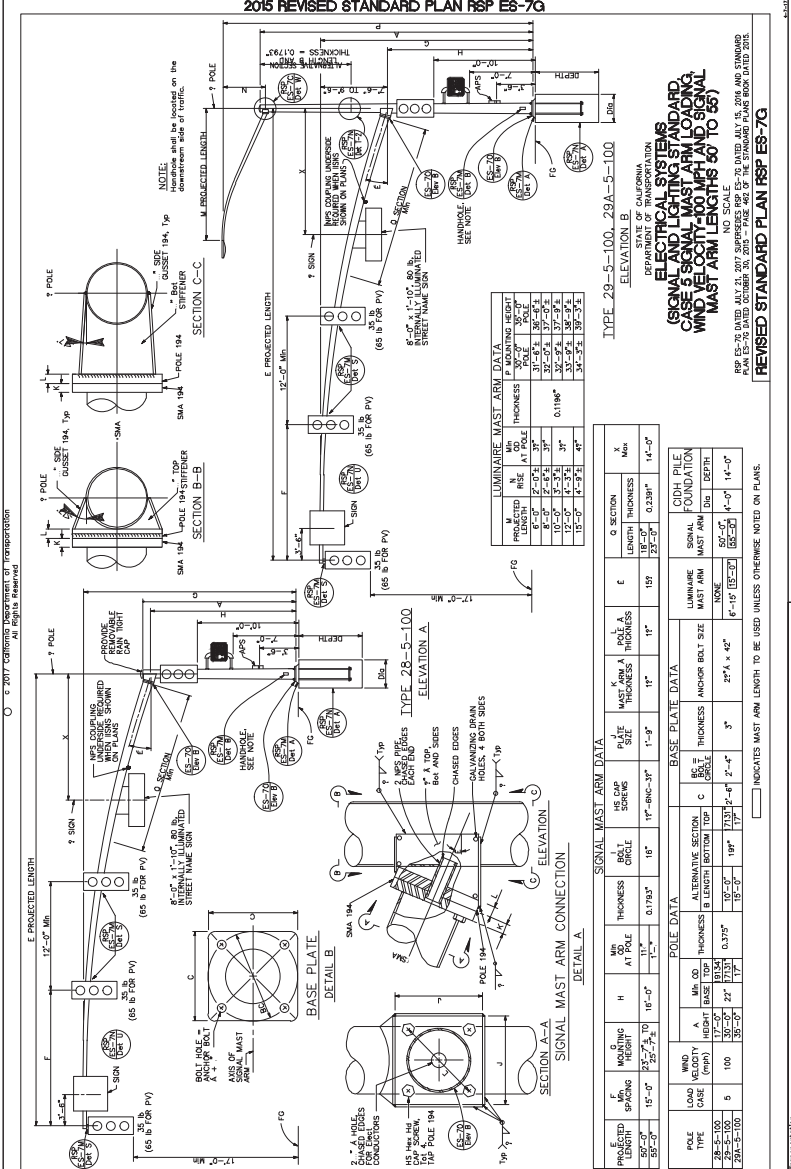
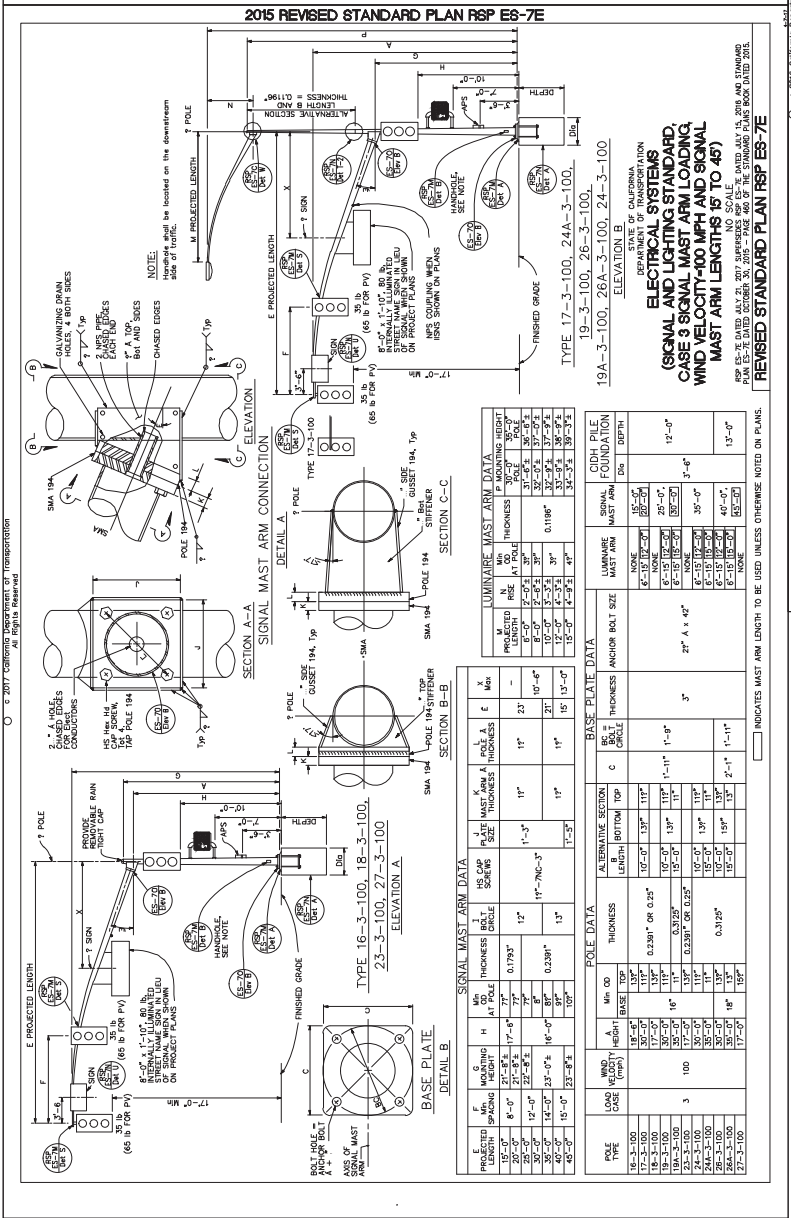
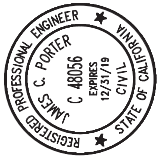
PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAP\000_CAD\SHETS\ELECTRIC\POLE DETAILS SHEET 1.DWG (TS-2)

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAP\000_CAD\SHETS\ELECTRIC\POLE DETAILS SHEET 2.DWG (TS-3)

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: EA COUNTY OF SAN MATEO
CHECKED BY: TS MIDDLEFIELD ROAD IMPROVEMENT PROJECT
DRAWN BY: EA POLE DETAILS
DATE: JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY 555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

SCALE: AS SHOWN
DATE: 11-17-2017
FILE NO: 1/XXXX

REVISION DATE

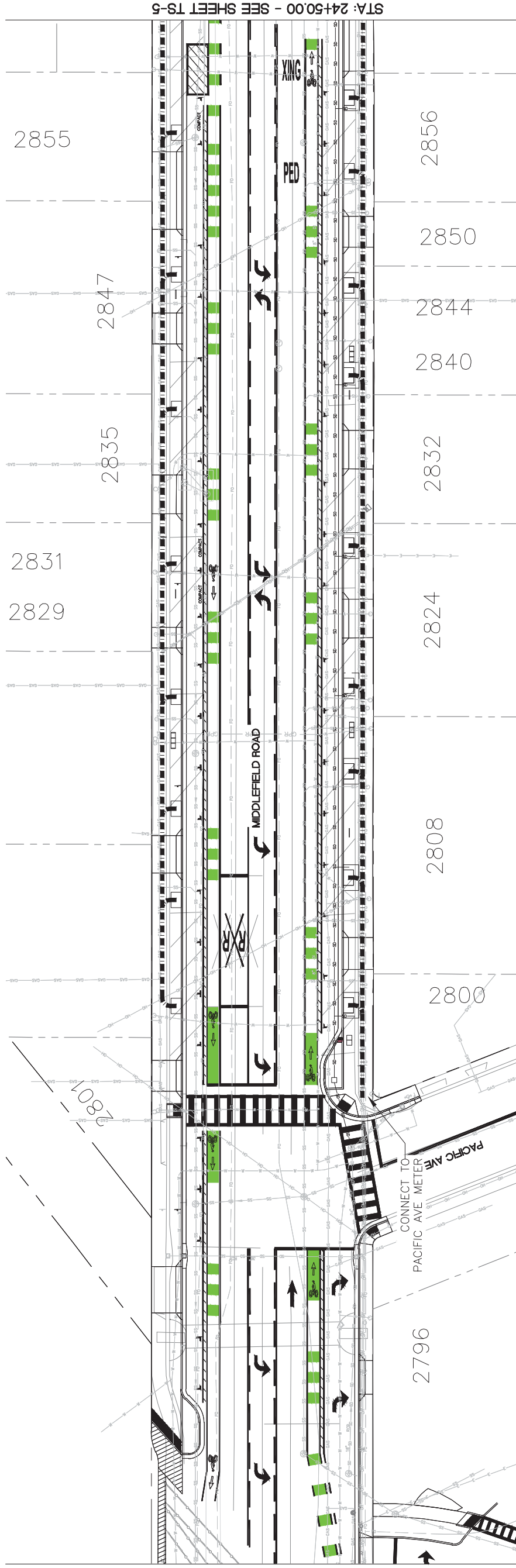
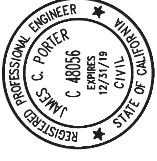
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

TS-3
SHEET X OF X

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

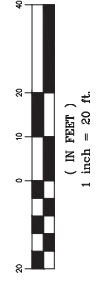
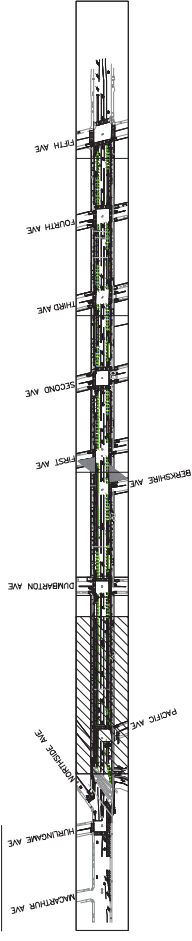


STA: 24+50.00 - SEE SHEET TS-5

LEGEND:

- ■ ■ ■ ■ PROPOSED TRAFFIC SIGNAL AND
- ■ ■ ■ ■ TREE HOLIDAY LIGHT CONDUIT

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION



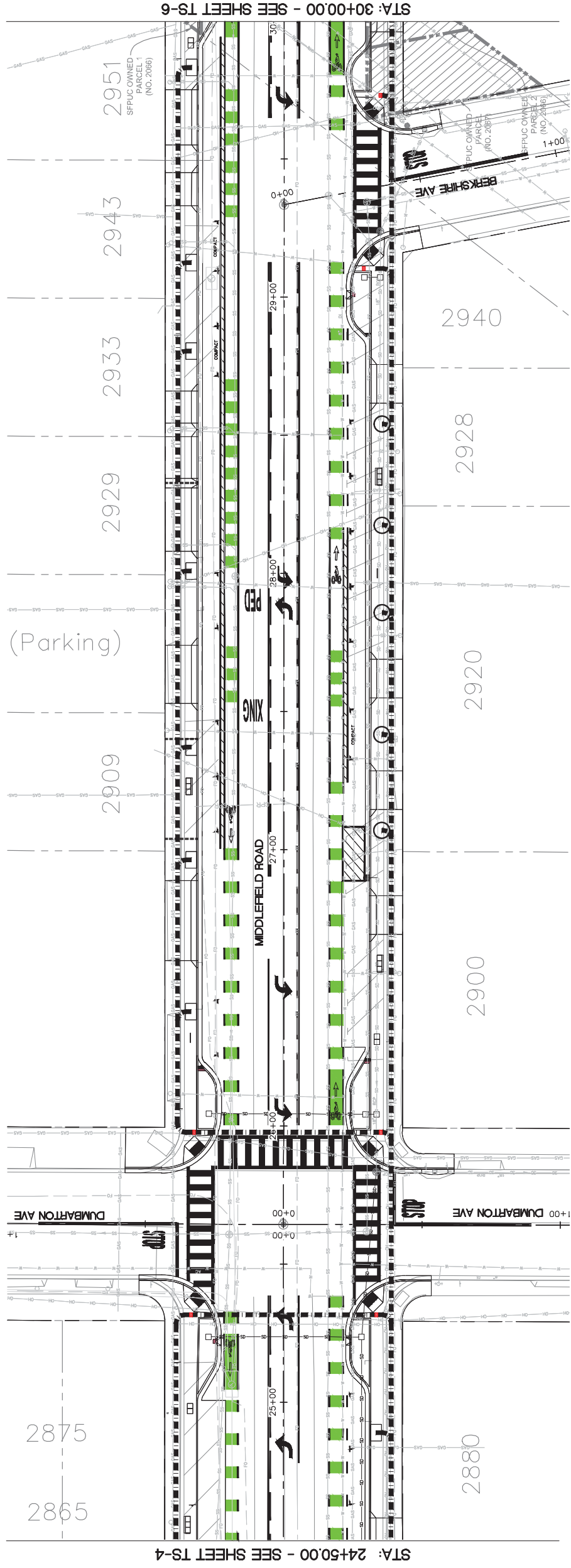
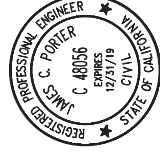
DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	TRAFFIC SIGNAL & HOLIDAY LIGHT CONDUIT	FILE NO: 1/XXXX
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	SAN MATEO COUNTY	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION	DATE	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4
		TS-4
		SHEET X OF X

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\APE\000_L\CD\SHETS\ELECTRIC\CONDUIT PATH SHEETS\TS-4.DWG (TS-4)

APPROVED:

DATE:

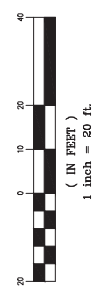
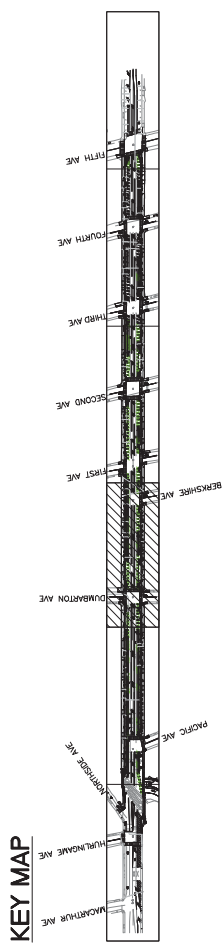
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019




STA: 24+50.00 - SEE SHEET TS-4

STA: 30+00.00 - SEE SHEET TS-6

- LEGEND:**
- PROPOSED TRAFFIC SIGNAL AND TREE HOLIDAY LIGHT CONDUIT
 - PROPOSED TRAFFIC SIGNAL PULL BOX (1.5' X 1.0')

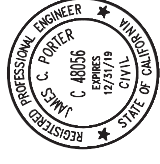


PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

		COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT TRAFFIC SIGNAL & HOLIDAY LIGHT CONDUIT FILE NO: 1/XXXX	SCALE: AS SHOWN DATE: 04-06-2018
DESIGNED BY: AB	CHECKED BY: TS	DRAWN BY: AB	FILE NO: 1/XXXX
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY 555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES			0 1 2 3 4 TS-5 SHEET X OF X

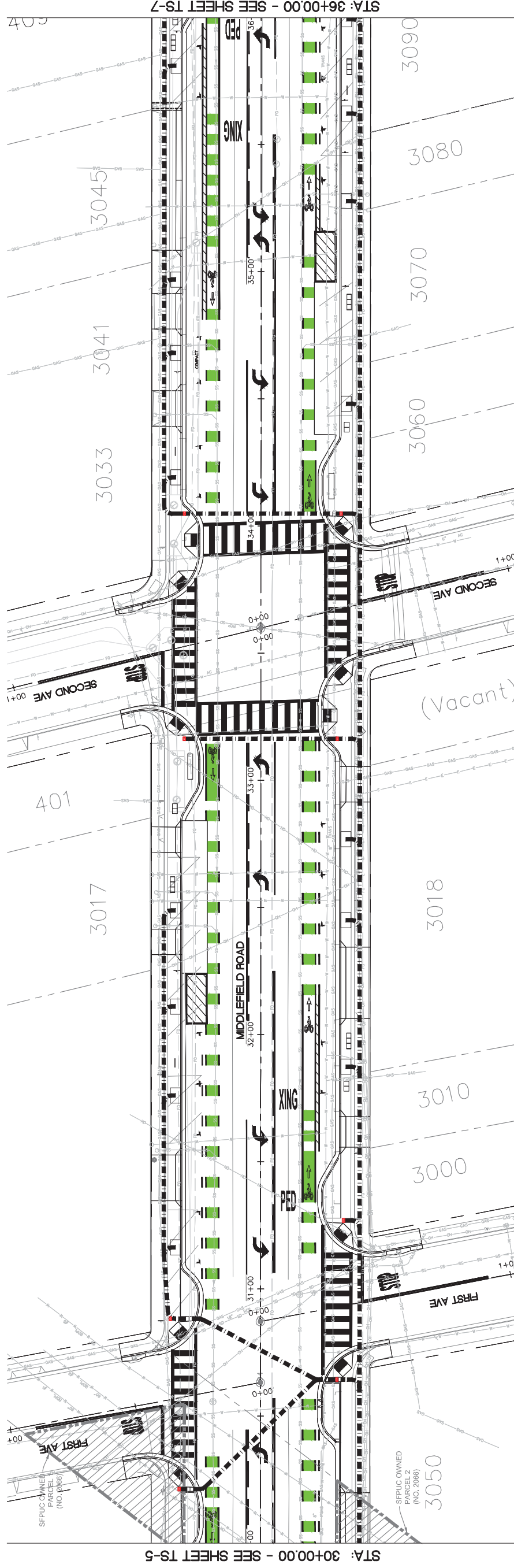
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APPROVED:



DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



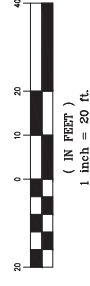
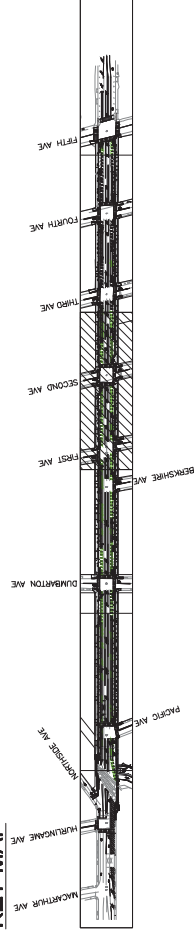
STA: 30+00.00 - SEE SHEET TS-5

STA: 36+00.00 - SEE SHEET TS-7

LEGEND:

- PROPOSED TRAFFIC SIGNAL AND TREE HOLIDAY LIGHT CONDUIT
- PROPOSED TRAFFIC SIGNAL PULL BOX (1.5' X 1.0')

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

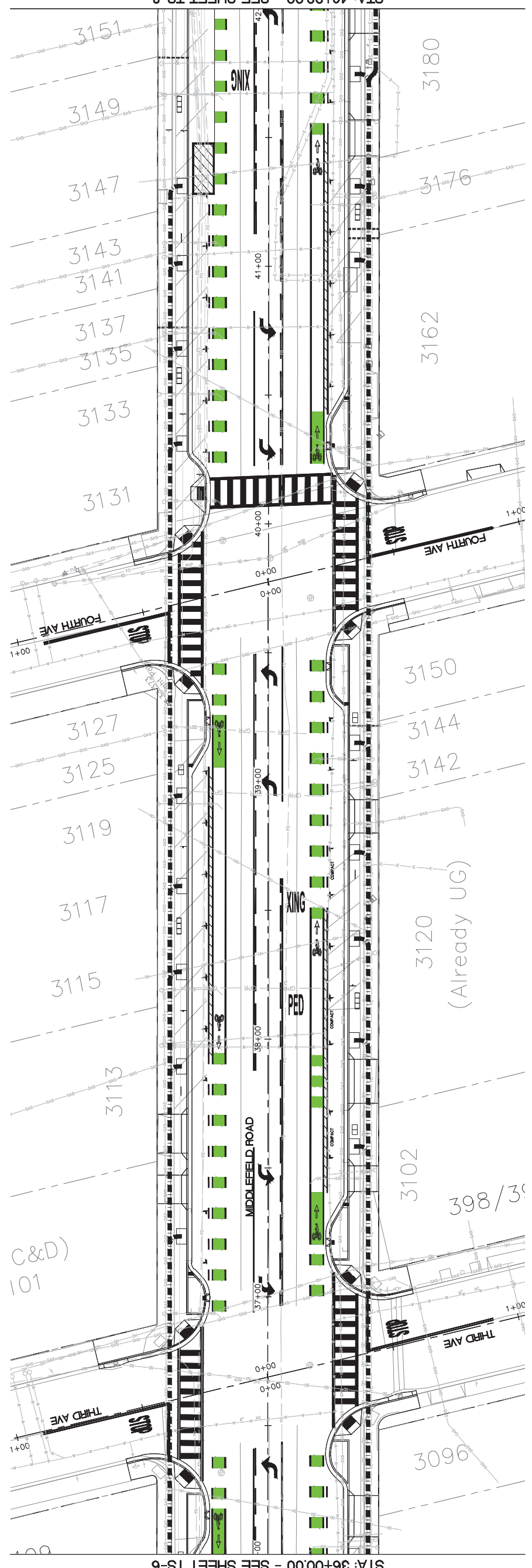


DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	TRAFFIC SIGNAL & HOLIDAY LIGHT CONDUIT	FILE NO: 1/XXXX
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
REVISION	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		TS-6
0 1 2 3 4		SHEET X OF X

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\ELECTRIC\CONDUIT PATH SHEETS\TS-6.DWG (TS-6)

APPROVED: _____
 DATE: _____

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2019

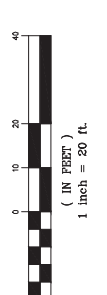
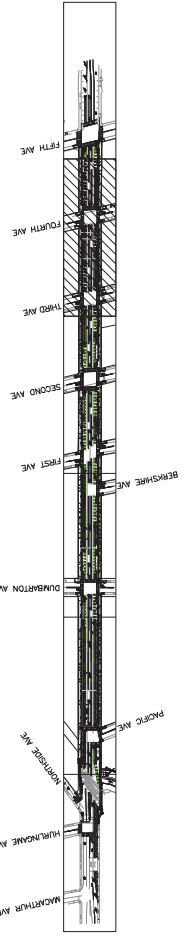


STA: 36+00.00 - SEE SHEET TS-6

STA: 42+00.00 - SEE SHEET TS-8

LEGEND:
 ■■■■■ PROPOSED TRAFFIC SIGNAL AND
 ■■■■■ TREE HOLIDAY LIGHT CONDUIT

KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

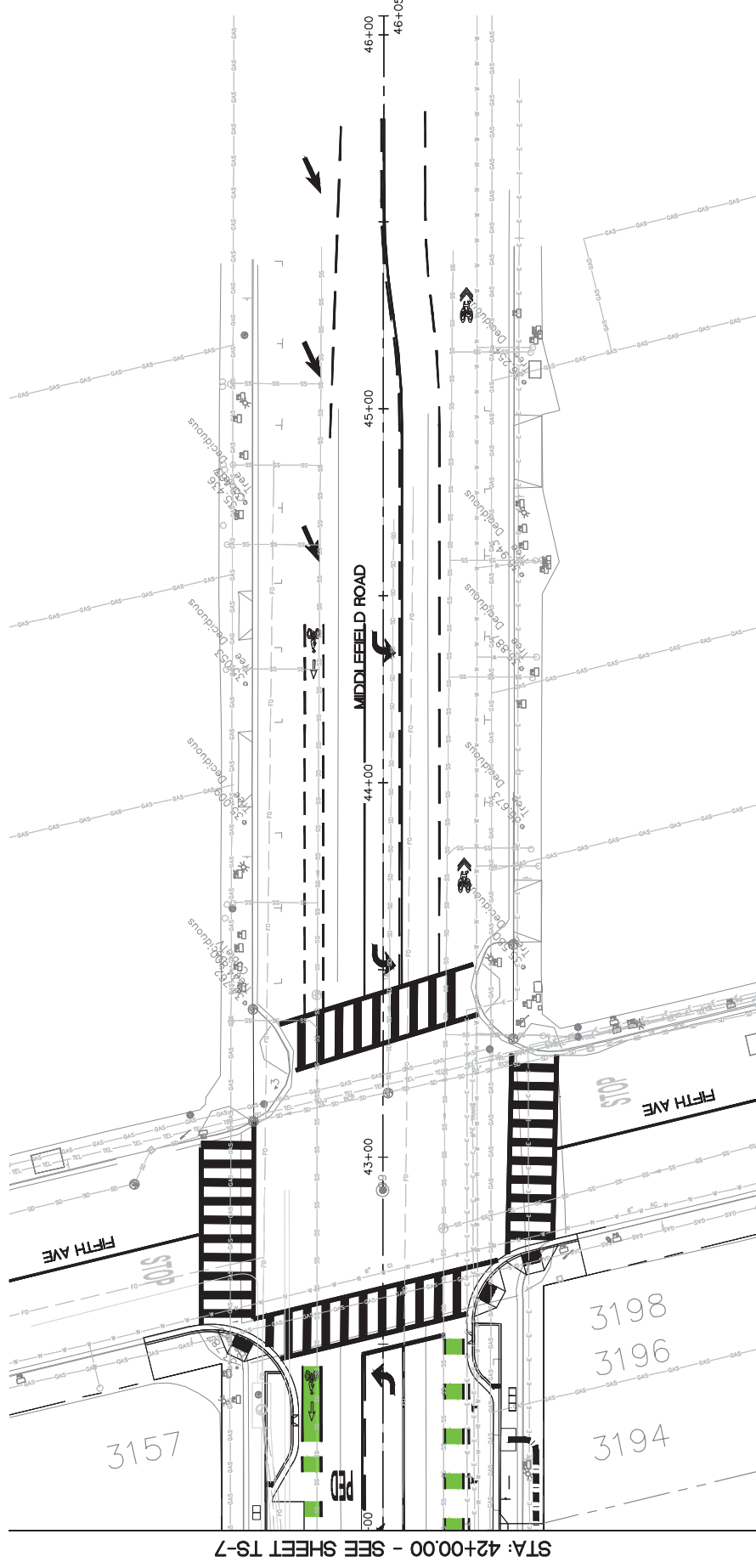
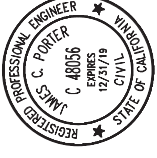
COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT TRAFFIC SIGNAL & HOLIDAY LIGHT CONDUIT		SCALE: AS SHOWN DATE: 04-06-2018 FILE NO: 1/XXXX
DESIGNED BY: AB CHECKED BY: TS DRAWN BY: AB	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY 555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063	REVISION DATE FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2 3 4		TS-7 SHEET X OF X

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_L\00\SHETS\ELECTRIC\CONDUIT PATH SHEETS\TS-7.DWG (TS-7)

APPROVED:

DATE:

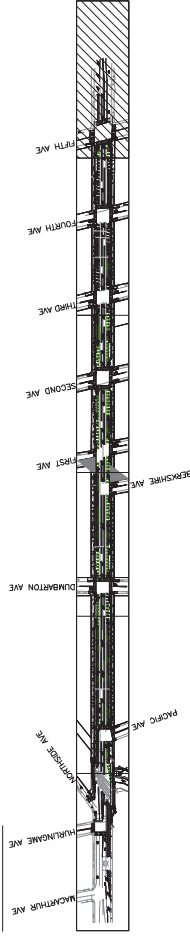
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019



LEGEND:

- PROPOSED TRAFFIC SIGNAL AND
- TREE HOLIDAY LIGHT CONDUIT

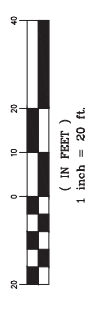
KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

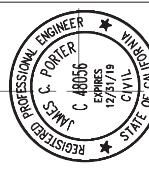


DESIGNED BY: AB	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AB	TRAFFIC SIGNAL & HOLIDAY LIGHT CONDUIT	FILE NO: 1/XXXX
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5TH FLOOR
REVISION	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		TS-8
0 1 2 3 4		SHEET X OF X

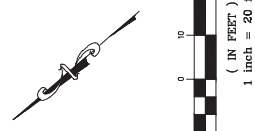


FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_L\CAD\SHEETS\ELECTRIC\CONDUIT PATH SHEETS\TS-8.DWG (TS-8)

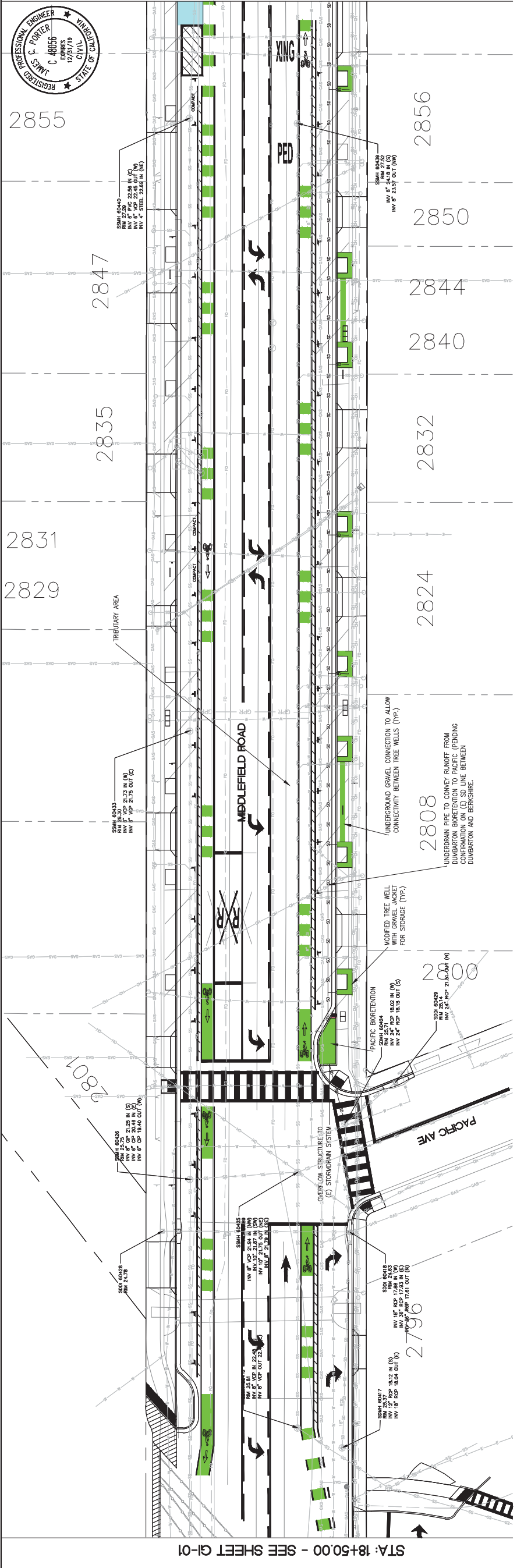
APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2019



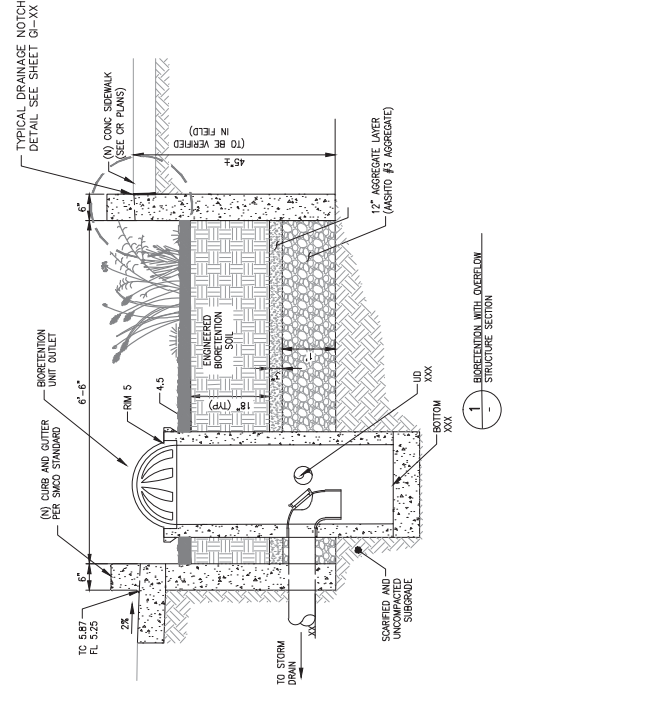
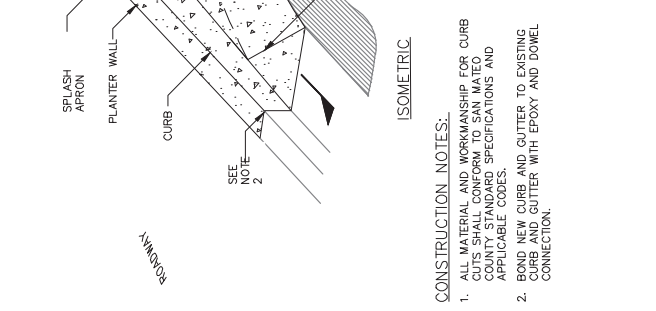
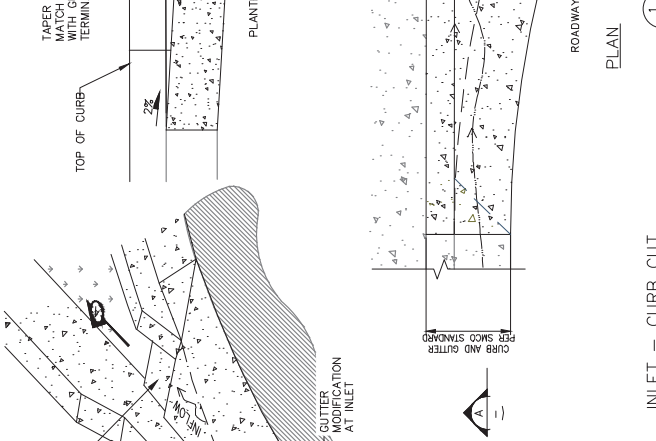
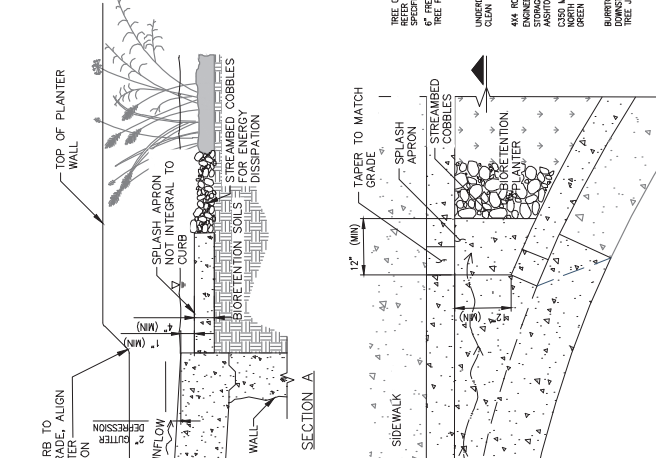
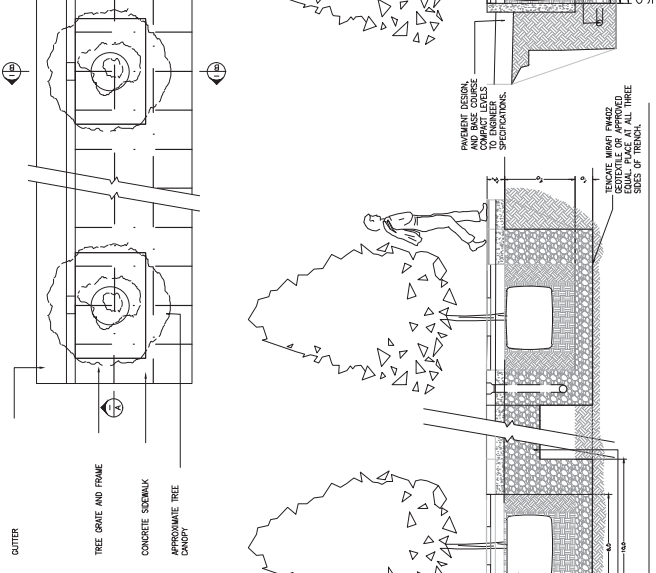
LEGEND



STA: 24+50.00 - SEE SHEET GI-03



STA: 18+50.00 - SEE SHEET GI-01

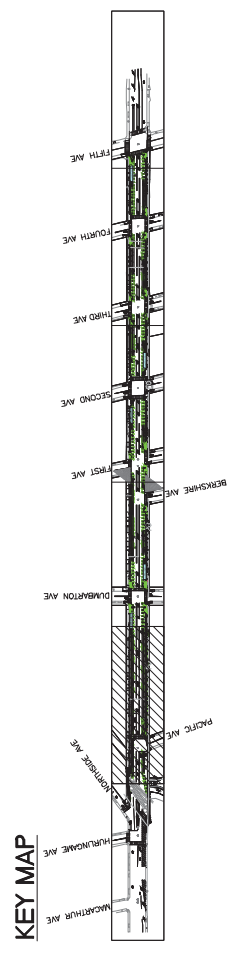


GI TREE PLANTING AND CONSTRUCTION NOTES:

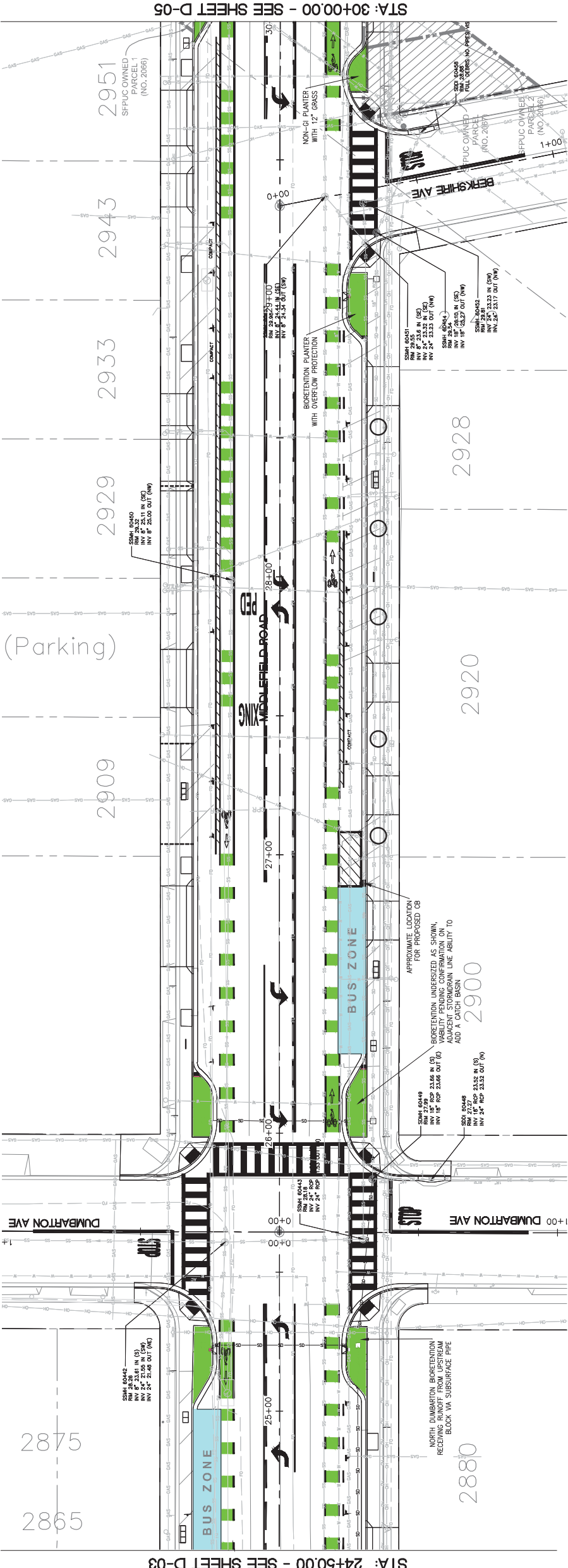
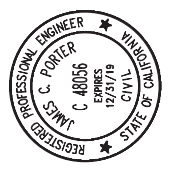
1. PLACE FIM202 GEOTEXTILE ON ALL THREE SIDES OF THE TRENCH.
2. PLACE THE AGGREGATE IN THE BOTTOM ONE FOOT OF THE TRENCH.
3. REMOVE THE 4'x4' TREE FROM WOODEN BOX AND WRAP THE ROOT BALL WITH C350 TURF REINFORCEMENT MATTING FROM NORTH AMERICAN GREEN, AND LOWER INTO THE PIT.
4. PLACE AND HOLD THE C350 TURF REINFORCEMENT MAT IN A VERTICAL POSITION BETWEEN THE ENGINEERED MEDIA AND STORAGE AGGREGATE.
5. PLACE ENGINEERED MEDIA AND STORAGE AGGREGATE IN ONE FOOT LIFTS, SUCH THAT THE C350 TURF REINFORCEMENT MAT WOULD NOT COLLAPSE UNDER THE WEIGHT OF EITHER OF THE MATERIALS.

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: AE	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AE	ADA AND GREEN INFRASTRUCTURE	FILE NO: 1/XXXX
DATE	SAN MATEO COUNTY	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION		
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES	0 1 2 3 4	GI-1 SHEET X OF X

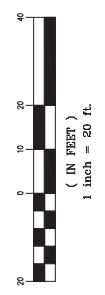
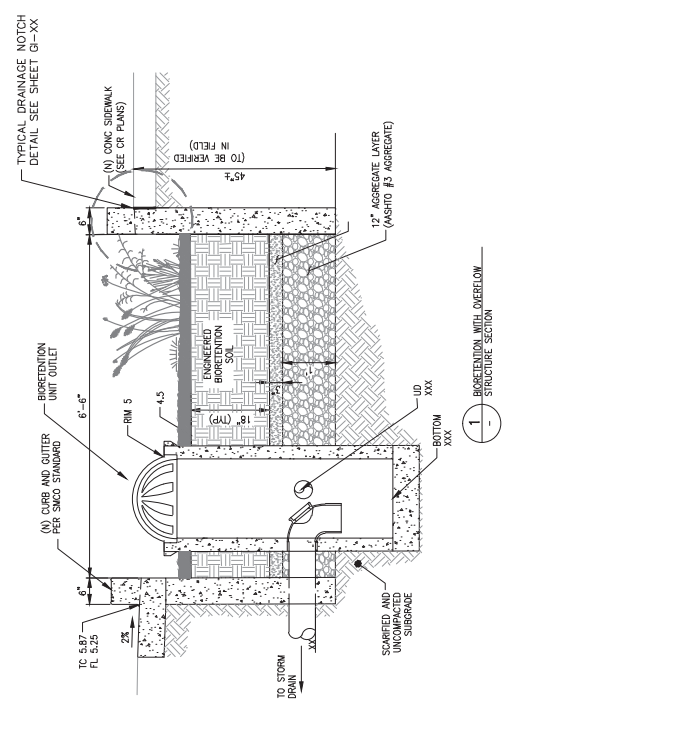
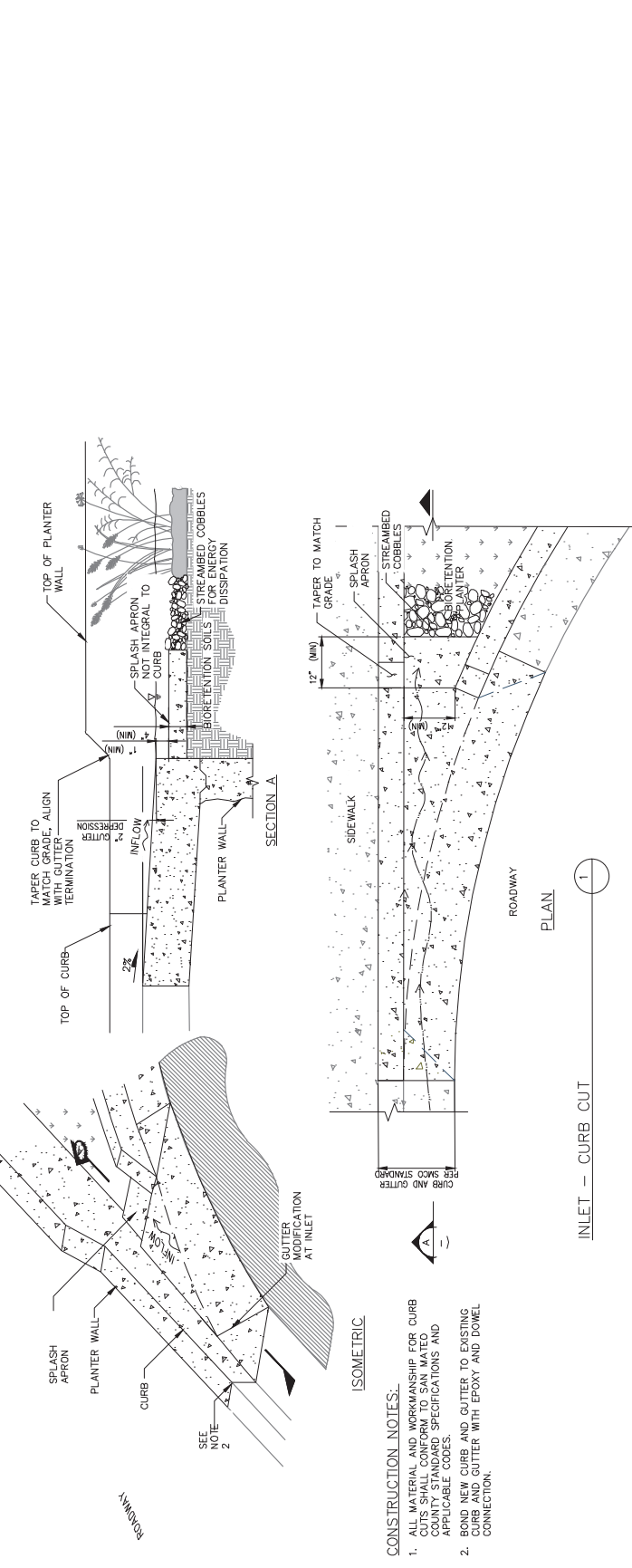


APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2019



STA: 24+50.00 - SEE SHEET D-03

STA: 30+00.00 - SEE SHEET D-05



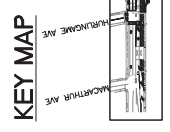
PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: AE	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AE	ADA AND GREEN INFRASTRUCTURE	FILE NO: 1/XXXX
DATE: _____	SAN MATEO COUNTY	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
REVISION: _____	555 COUNTY CENTER, 5TH FLOOR	REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS
 ORIGINAL SCALE IS IN INCHES

0 1 2 3 4

GI-2
 SHEET X OF X



FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAE\000_CAD\SHEETS\GI\GI-2.DWG (GI-2)

APPROVED:



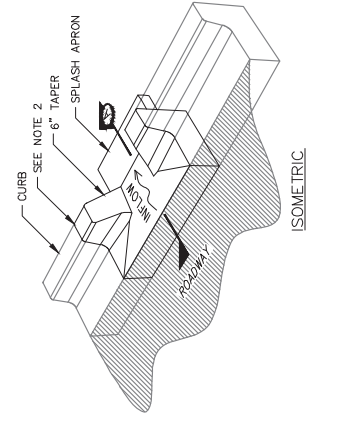
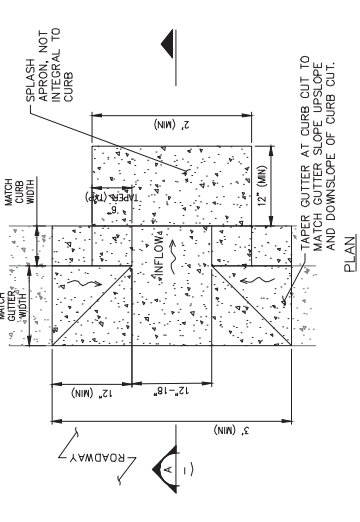
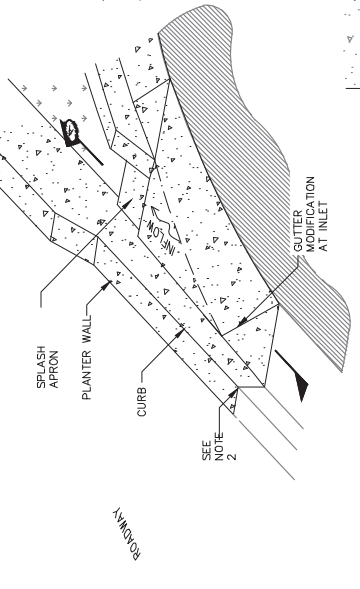
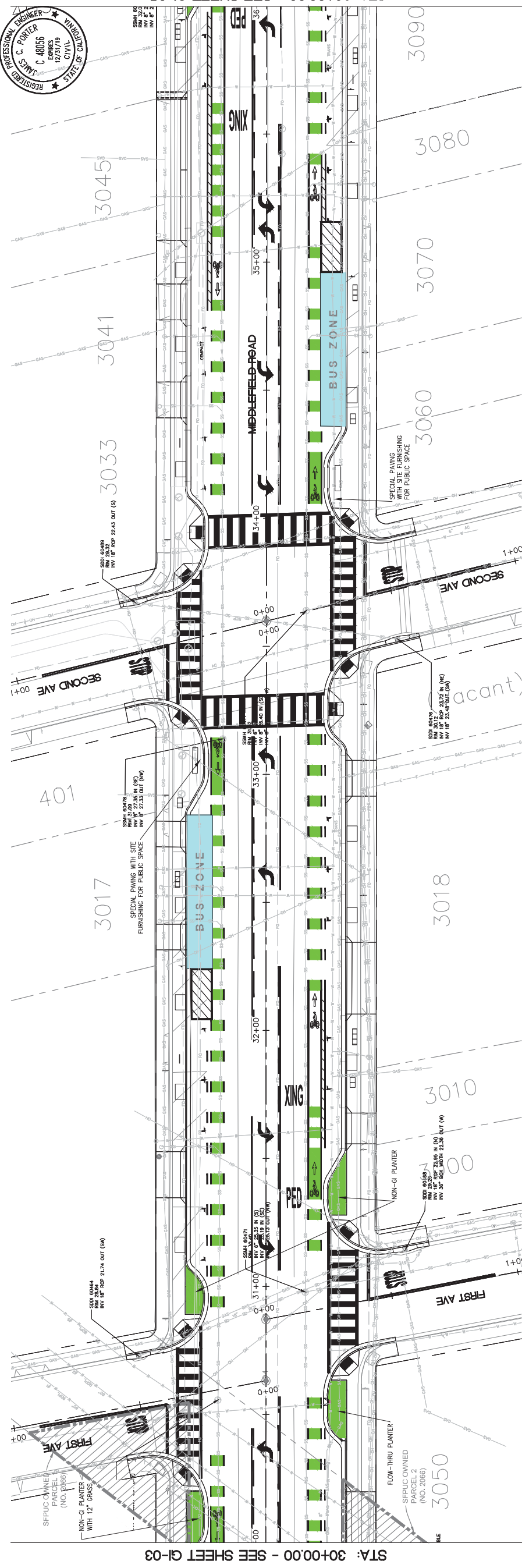
DATE: _____
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

LEGEND



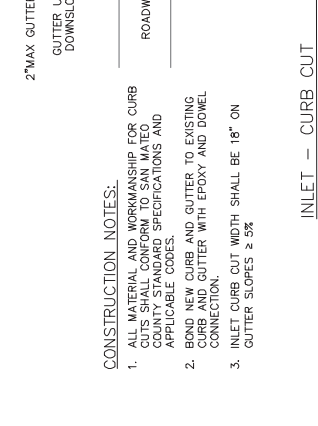
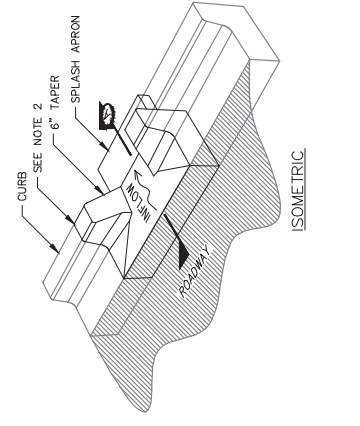
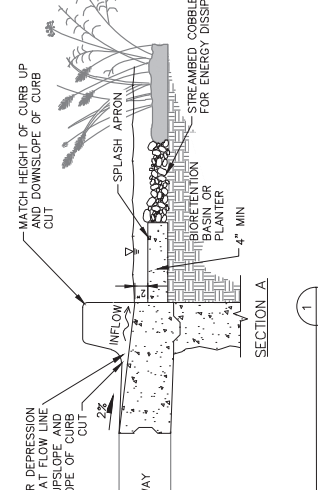
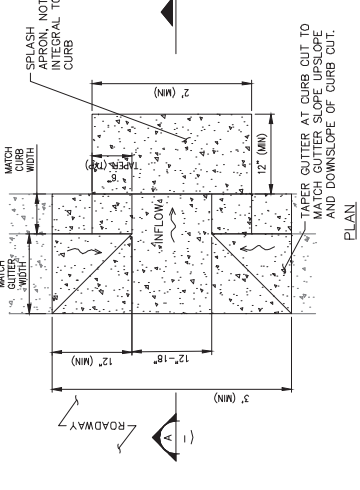
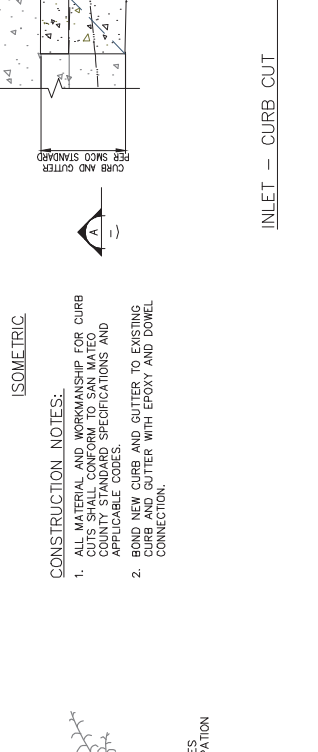
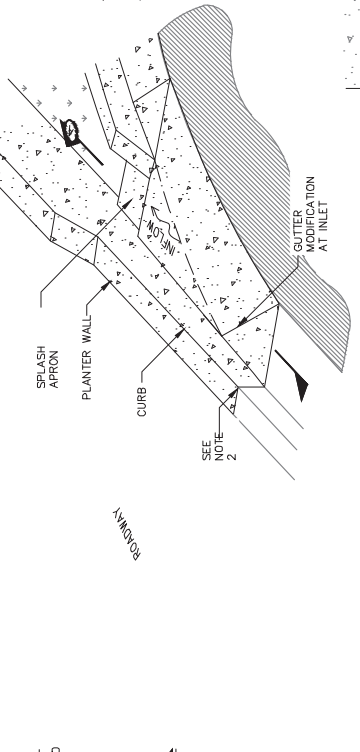
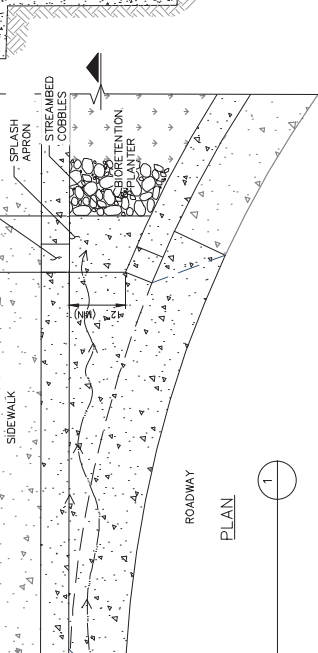
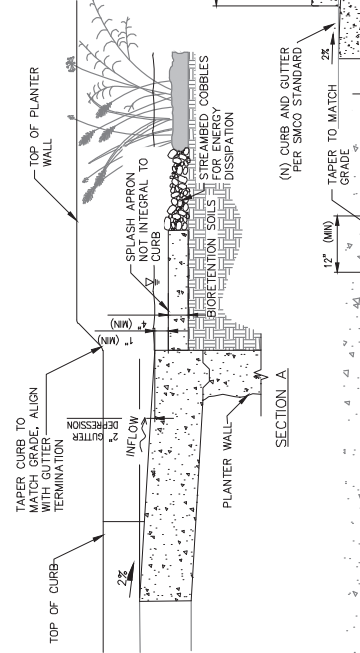
STA: 36+00.00 - SEE SHEET G1-05

STA: 30+00.00 - SEE SHEET G1-03



CONSTRUCTION NOTES:
1. ALL MATERIAL AND WORKMANSHIP FOR CURB CUTS SHALL CONFORM TO SAN MATEO COUNTY STANDARD SPECIFICATIONS AND APPLICABLE CODES.
2. BOND NEW CURB AND GUTTER TO EXISTING CURB AND GUTTER WITH EPOXY AND DOWEL CONNECTION.

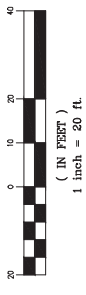
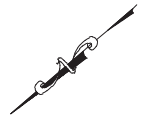
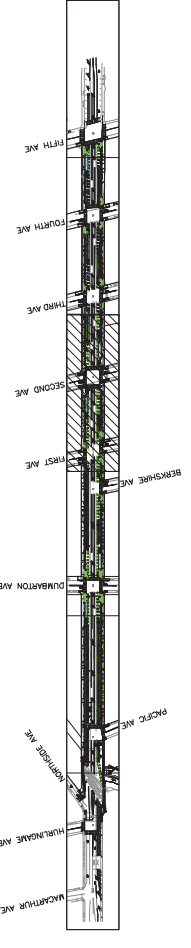
CONSTRUCTION NOTES:
1. ALL MATERIAL AND WORKMANSHIP FOR CURB CUTS SHALL CONFORM TO SAN MATEO COUNTY STANDARD SPECIFICATIONS AND APPLICABLE CODES.
2. BOND NEW CURB AND GUTTER TO EXISTING CURB AND GUTTER WITH EPOXY AND DOWEL CONNECTION.
3. INLET CURB CUT WIDTH SHALL BE 18" ON GUTTER SLOPES ± 5%.



INLET - CURB CUT

INLET - CURB CUT

KEY MAP



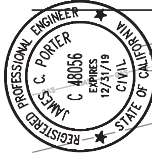
PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: AE		COUNTY OF SAN MATEO		SCALE: AS SHOWN
CHECKED BY: TS		MIDDLEFIELD ROAD IMPROVEMENT PROJECT		DATE: 04-06-2018
DRAWN BY: AE		ADA AND GREEN INFRASTRUCTURE		FILE NO: 1/XXXX
REVISION	DATE	SAN MATEO COUNTY	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063	
		JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS		
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4	GI-3	SHEET X OF X



FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_CAD\SHEETS\G1-03.DWG (G1-3)

APPROVED:



DATE:

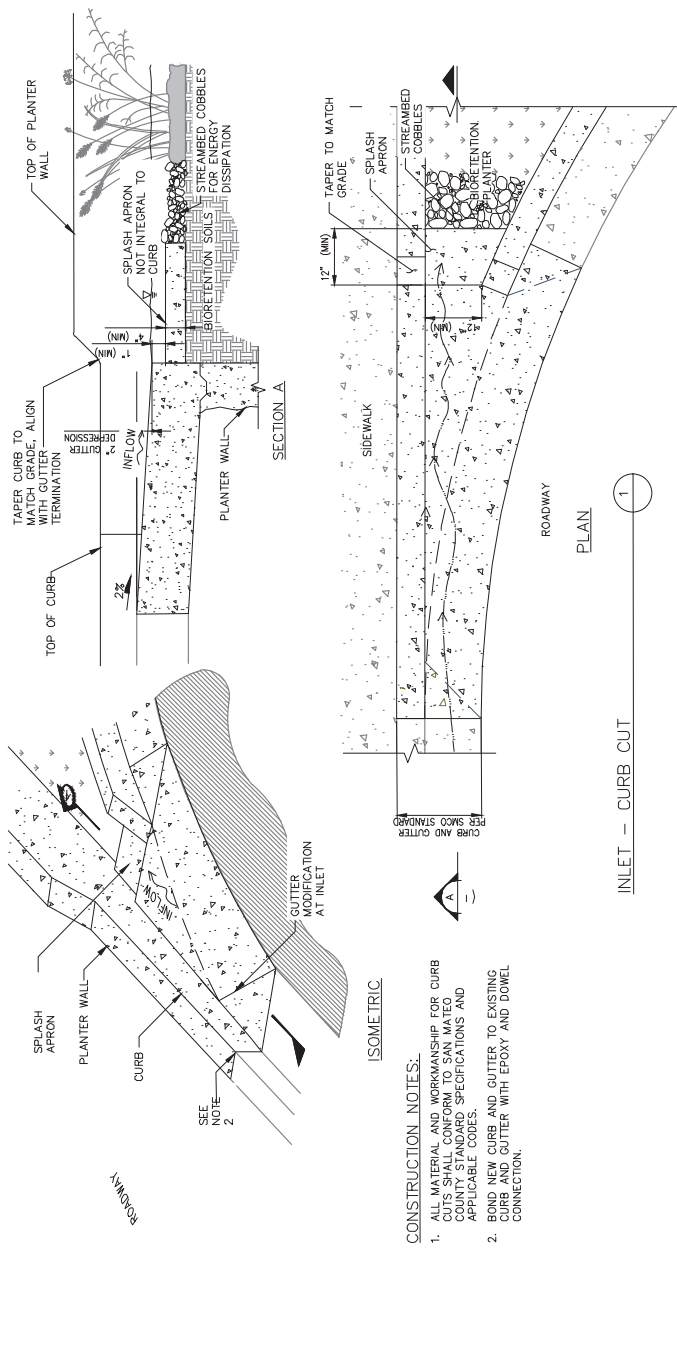
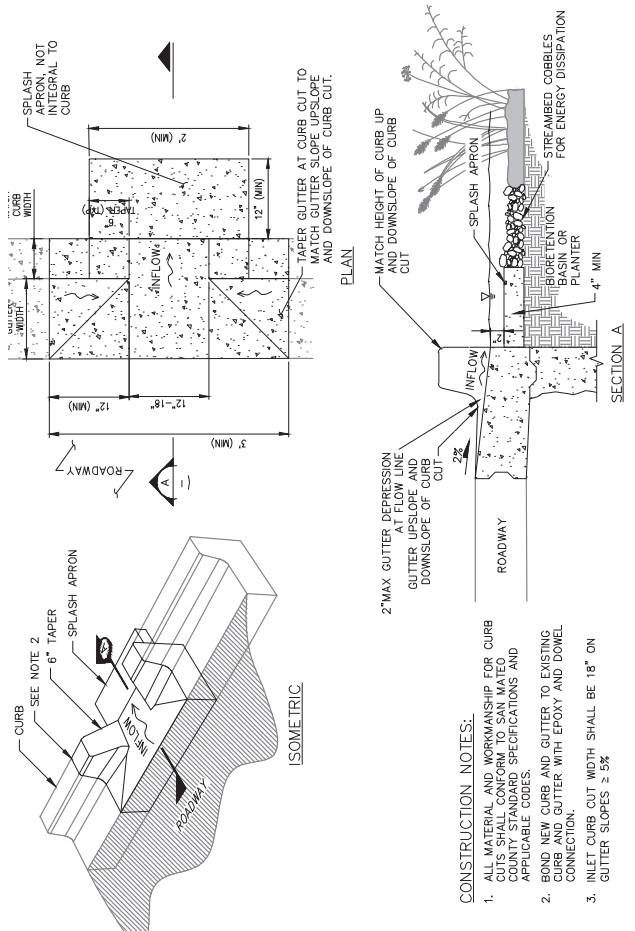
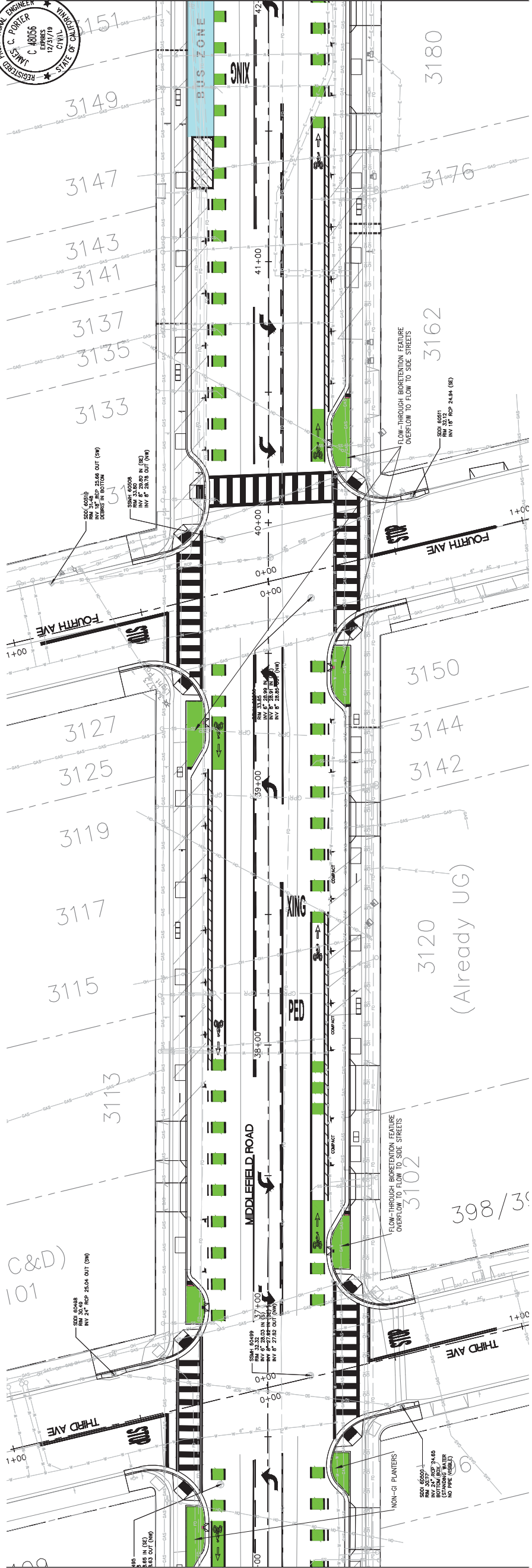
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

LEGEND

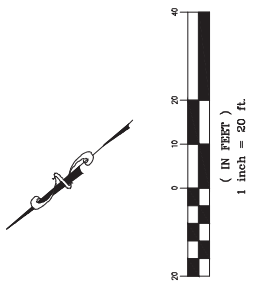
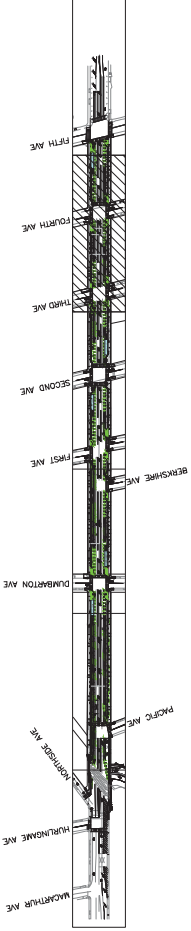


STA: 36+00.00 - SEE SHEET GI-04

STA: 42+00.00 - SEE SHEET GI-06



KEY MAP



PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION

DESIGNED BY: AE
CHECKED BY: TS
DRAWN BY: AE

COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
ADA AND GREEN INFRASTRUCTURE

555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

SCALE: AS SHOWN
DATE: 04-06-2018
FILE NO: 1/XXXX

REVISION DATE

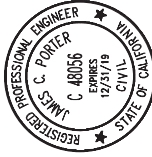
FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

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GI-4
SHEET X OF X

FILENAME: X:\COUNTY OF SAN MATEO\60429576 MIDDLEFIELD RD STREETS\CAPE\000_LAD\SHETS\GI\GI-04.DWG (GI-4)

APPROVED:



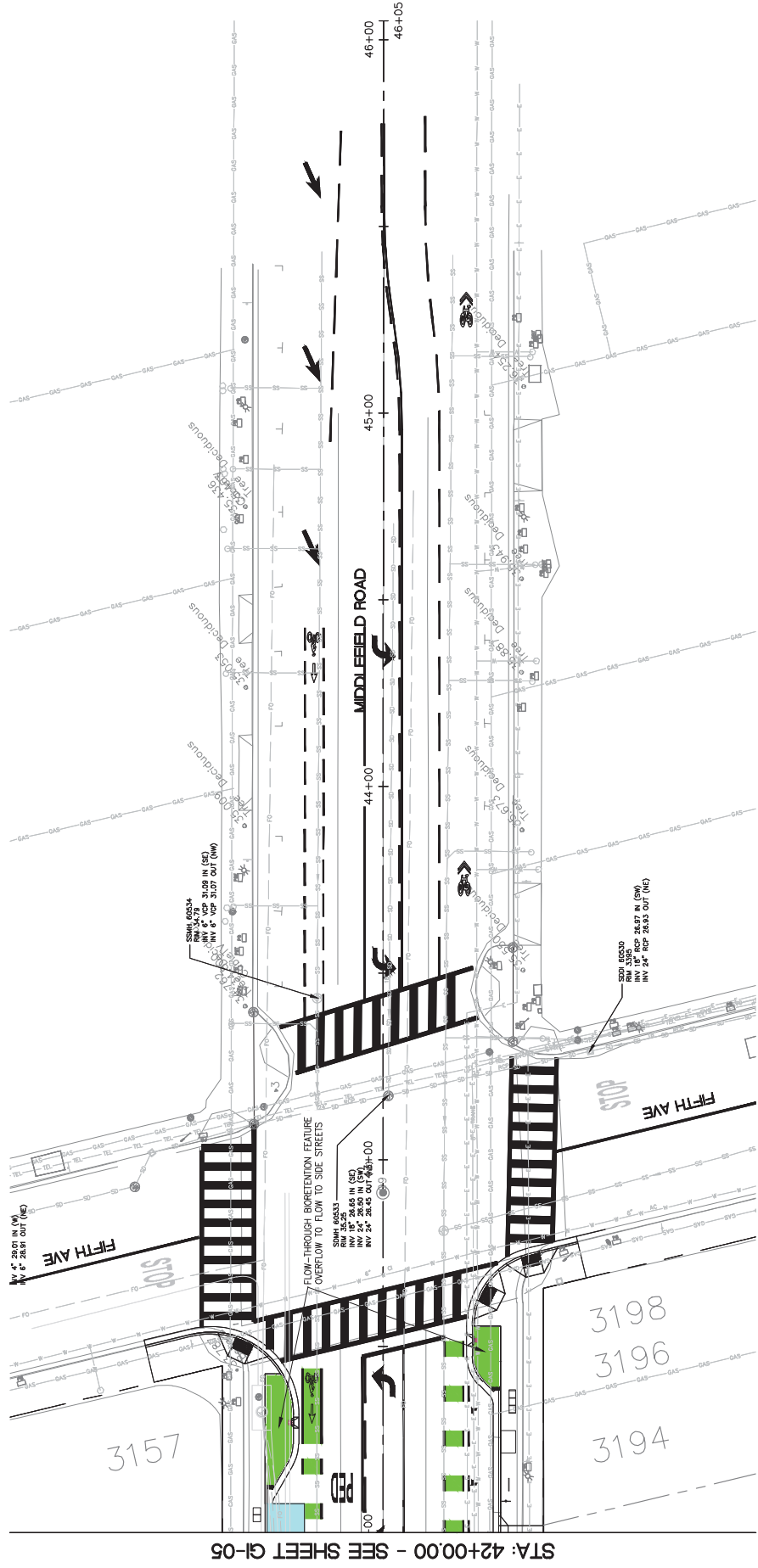
DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2019

LEGEND

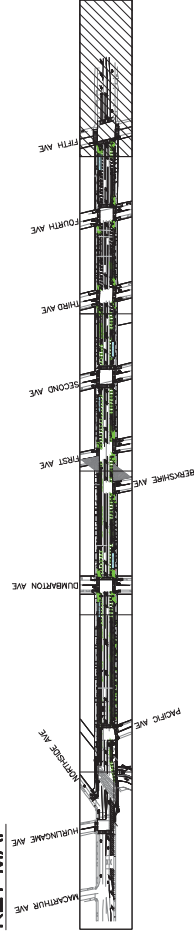


DRAINAGE AREA



STA: 42+00.00 - SEE SHEET GI-05

KEY MAP



(IN FEET)
1 inch = 20 ft.

PROGRESS PRINTING - FOR COORDINATION ONLY - NOT FOR CONSTRUCTION



DESIGNED BY: AE	COUNTY OF SAN MATEO	SCALE: AS SHOWN
CHECKED BY: TS	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04-06-2018
DRAWN BY: AE	ADA AND GREEN INFRASTRUCTURE	FILE NO.: 1/XXXX
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
DATE		
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4
		GI-5
		SHEET X OF X

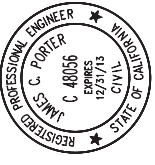
GENERAL NOTES

- THESE DRAWINGS AND SPECIFICATIONS DESCRIBE THE QUALITY AND CHARACTER OF THE MATERIALS, SHAPE, CONFIGURATION AND DESIGN INTENT OF THE COMPLETED, INSTALLED WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING COMPLETE AND OPERATIONAL SYSTEMS AND INSTALLATIONS OF THE DESCRIBED DESIGN INTENT, INCLUDING ALL MISCELLANEOUS ITEMS OF WORK, MATERIALS, EQUIPMENT, ETC., NECESSARY TO COMPLETE THE INSTALLATION WHETHER OR NOT MENTIONED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS. ALL MATERIALS SHALL BE FURNISHED AND PROPERLY INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- THE INSTALLED WORK SHALL CONFORM TO THE REQUIREMENTS OF THE GOVERNING BUILDING AUTHORITY, ALL SPECIAL REQUIREMENTS AND CONDITIONS OF THE BUILDING PERMIT, AND ALL APPLICABLE CODES, LAWS, STANDARDS, ETC.
- THE CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SPECIFICATIONS AND CLEARLY UNDERSTAND THE EXISTING CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED PRIOR TO BIDDING. THE CONTRACTOR SHALL BE FAMILIAR WITH THE PROJECT SITE, FIELD INVESTIGATE, VERIFY AND BE RESPONSIBLE FOR ALL CONDITIONS, ELEVATIONS AND DIMENSIONS OF THE PROJECT, AS SHOWN OR REFERENCED ON THE DRAWINGS. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE ABOUT ANY CONDITION REQUIRING MODIFICATION OR CLARIFICATION PRIOR TO BIDDING. ENTERING INTO AN AGREEMENT WITH THE OWNER INDICATES THAT THE CONTRACTOR HAS VISITED THE SITE, FAMILIAR WITH THE EXISTING CONDITIONS, AND FULLY UNDERSTANDS THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. NO ALLOWANCES OF ANY KIND WILL BE MADE FOR ANY EXTRA COST DUE TO THE CONTRACTOR'S FAILURE TO INFORM THE OWNER OF DISCREPANCIES IN TIME TO ISSUE CORRECTIVE ADDENDA, PRIOR TO BIDDING.
- ALL GENERAL NOTES, DIMENSIONS, AND DETAILS SHALL BE CONSIDERED TYPICAL AND APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED. SPECIFIC NOTES, DETAILS AND SPECIFICATIONS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF ALL WORK BETWEEN TRADES, SUBCONTRACTORS, MANUFACTURERS, FABRICATORS, AND ALL OTHER CONTRACTED FOR THE COMPLETION OF THE WORK, INCLUDING THOSE UNDER SEPARATE CONTRACTS FOR CONCURRENT PROJECTS.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL TESTING, INSPECTIONS AND REPORTING AS OUTLINED IN THE CONTRACT DOCUMENT AND AS REQUIRED BY THE PERMITTING AUTHORITIES TO COMPLETE THE WORK.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE RECOMMENDATIONS SPECIFIED IN THE GEOTECHNICAL INVESTIGATION REPORT PREPARED BY _____, DATED _____, THE RECOMMENDATIONS OF THE REPORT SHALL SUPERSEDE THE INFORMATION FOUND WITHIN THESE CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS).
- ALL UNDERGROUND UTILITIES SHOWN ON THESE PLANS REFLECT THE AVAILABLE RECORDS. CONTRACTOR SHALL USE CAUTION IN ALL EXCAVATION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE TO INVESTIGATE AND VERIFY ALL EXISTING AND PROPOSED CONDITIONS AS SHOWN OR REFERENCED IN THE DOCUMENTS, INCLUDING LOCATION AND DEPTH OF ALL UTILITIES. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY CONFLICTS AND/OR DISCREPANCIES BETWEEN EXISTING AND PROPOSED CONDITIONS WHICH WILL AFFECT THE WORK, BEFORE PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA 800-842-2444) TWO WORKING DAYS MINIMUM PRIOR TO ANY EXCAVATION.
- THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE DIVISION OF INDUSTRIAL SAFETY PERTAINING TO "CONFINED SPACE". ANY MANHOLE, CULVERT, DROP INLET OR TRENCH, WHICH COULD CONTAIN AIR THAT IS NOT READILY VENTILATED, MAY BE CONSIDERED A "CONFINED SPACE".
- PROVIDE ADEQUATE PROTECTION FOR ALL PROPOSED AND EXISTING UTILITIES DURING THE CONSTRUCTION OF THIS PROJECT.
- ALL EXISTING UTILITY STRUCTURES (SHOWN OR NOT SHOWN ON THE DRAWINGS) WITHIN THE AREA OF WORK SHALL BE ADJUSTED OR RECONSTRUCTED TO THE FINISH GRADES SHOWN AND SPECIFIED.
- UTILITY CONNECTIONS AND DISCONNECTIONS NECESSARY TO COMPLETE THE WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO MINIMIZE UTILITY SERVICE INTERRUPTIONS. CONTRACTOR SHALL COORDINATE ALL "DOWN TIME" WITH THE OWNER'S REPRESENTATIVE AND THE APPROPRIATE UTILITY AND/OR AGENCY.
- REFER TO CIVIL DRAWINGS FOR INFORMATION AND LOCATION OF ALL EXISTING AND PROPOSED UTILITIES.
- THE CONTRACTOR SHALL PROTECT EXISTING FACILITIES, TREES, LANDSCAPE AND OTHER ITEMS TO REMAIN FROM DAMAGE. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL PROVIDE BARRICADES, SIGNS, LIGHTS, ETC. FOR THE PROTECTION OF PUBLIC, PERSONNEL, PROPERTY, AND MATERIAL AND TO PREVENT UNCONTROLLED ACCESS TO THE SITE AT ALL TIMES. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND NOT LIMITED TO NORMAL WORKING HOURS.
- THE CONTRACTOR SHALL PROVIDE ACCESSIBLE EGRESS AND INGRESS TO ON-SITE FACILITIES THAT ARE TO REMAIN OPERATIONAL DURING CONSTRUCTION.
- ANY PERMANENT MONUMENTS OR POINTS DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED BY A LICENSED ENGINEER OR LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.
- THE CONTRACTOR SHALL EMPLOY ALL MEANS NECESSARY TO CONTROL AIRBORNE PARTICULATE (DUST) AT AND NEAR THE CONSTRUCTION SITE OF WORK AND ALONG APPROACH ROUTES TO THE CONSTRUCTION SITE AND IN COMPLIANCE WITH LOCAL AIR QUALITY STANDARDS.
- CONTRACTOR SHALL MAINTAIN "GOOD HOUSEKEEPING" PRACTICES AT THE JOB SITE. EXCESS BUILDING MATERIALS AND DEBRIS SHALL BE REMOVED PROMPTLY FROM THE JOB SITE AND DISPOSED OF AT AN APPROVED DUMPSITE. THE JOB SITE SHALL BE LEFT "BROOM CLEAN" AT THE END OF EACH WORKDAY. BEFORE ACCEPTANCE BY THE OWNER'S REPRESENTATIVE, THE COMPLETED CONSTRUCTION SHALL BE CLEARED, ANY APPLICABLE LABELS REMOVED, AND ALL OTHER TOUCHUP WORK COMPLETED. ALL FINISH MATERIALS SHALL BE PROTECTED AT ALL TIMES AGAINST SUBSEQUENT DAMAGE UNTIL FINAL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE FOR DESIGNATION OF THE EQUIPMENT AND MATERIAL STORAGE AND STAGING AREAS AT THE JOB SITE.
- WASTEWATER GENERATED DURING CONSTRUCTION SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM. IF NECESSARY, THE CONTRACTOR SHALL PROVIDE AN AREA FOR ON-SITE WASHING ACTIVITIES DURING CONSTRUCTION. MATERIALS THAT COULD CONTAMINATE STORMWATER RUNOFF SHALL BE STORED IN AREAS WHICH ARE DESIGNED TO PREVENT EXPOSURE TO RAINFALL AND PREVENT RUNOFF. GRADING AND DRAINAGE FEATURES SHALL BE CONSTRUCTED SO THAT WATER FLOW DOES NOT DRAIN TO OTHER PROPERTIES. FLUSHING OF STREETS AND PARKING LOTS TO REMOVE DIRT AND CONSTRUCTION DEBRIS IS PROHIBITED UNLESS PROPER SEDIMENT CONTROLS ARE USED.
- REFER TO CIVIL DRAWINGS FOR THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). IF NO PLAN IS PROVIDED, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A SWPPP TO THE APPROPRIATE AGENCY FOR APPROVAL.
- THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY THE APPROPRIATE AGENCY PRIOR TO ANY WORK REQUIRING TRAFFIC CONTROL. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROLS IN ACCORDANCE WITH CALTRANS "MANUAL OF TRAFFIC CONTROLS FOR CONSTRUCTION AND MAINTENANCE WORK ZONES" (CURRENT EDITION) AND ANY ADDITIONAL CITY, COUNTY, DISTRICT OR OTHER AGENCY REQUIREMENTS. FAILURE TO COMPLY MAY RESULT IN IMMEDIATE STOPPAGE OF WORK UNTIL THE PROPER TRAFFIC CONTROL IS IN PLACE.
- THE CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL IMPROVEMENTS TO THE ADJACENT EXISTING CONDITIONS WITH SMOOTH TRANSITIONS TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES, CROSS SLOPE, HAZARDOUS CONDITIONS, ETC.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE OF ANY REVISIONS OR ADDITIONAL WORK REQUIRED AS A RESULT OF FIELD CONDITIONS OR LOCAL GOVERNING AUTHORITIES. ALL REVISIONS SHALL BE IN WRITTEN CHANGE ORDER FORM AND APPROVED AND AUTHORIZED BY THE OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK. WORK PERFORMED WITHOUT WRITTEN AUTHORIZATION SHALL BE THE FULL RESPONSIBILITY OF THE CONTRACTOR AND AT NO ADDITIONAL COST TO THE OWNER.

LANDSCAPE ABBREVIATIONS

AL	ALIGN	FOC	FACE OF CURB
AC	ASPHALTIC CONCRETE	FT	FOOTFEET
AD	AREA DRAIN	FTG	FOOTING
ADA	AMERICANS WITH DISABILITIES ACT	GA	GAUGE
AGG	AGGREGATE	GAL	GALLON
ALUM	ALUMINUM	GALV	GALVANIZED
APPX	APPROXIMATE	GB	GRADE BREAK
ARCH	ARCHITECTURE	GC	GALLON/CAN
BLDG	BUILDING	GFRC	GLASS FIBER REINFORCED CONCRETE
BOS	BOTTOM OF SLOPE	GPM	GALLONS PER MINUTE
BS	BOTTOM OF STAIRS	GRD	GRADE
BX	BOX	HB	HOSE BIB
CAL	CALIFORNIA DISABLED ACCESSIBILITY GUIDEBOOK	HDPE	HIGH DENSITY POLYETHYLENE
CALDAG	CATCH BASIN	HDR	HEADER
CB	CALIFORNIA BUILDING CODE	HORIZ	HORIZONTAL
CBC	CONTROL JOINT	HT	HEIGHT
CJ	CENTERLINE	ID	INSIDE DIAMETER
CL	CHAIN LINK FENCE	INV	INVERT ELEVATION
CLF	CLEAR	IRR	IRRIGATION
CLR	CLEAN OUT	LF	LINEAR FEET
CO	COLUMN	MAWA	MAXIMUM APPLIED WATER ALLOWANCE
COL	CONCRETE	MAX	MAXIMUM
CONC	CONSTRUCTION	MFG	MANUFACTURER
CONST	CONTINUOUS	MH	MANHOLE
CONT	CENTER	MIN	MINIMUM
CTR	CUBIC YARD	(N)	NOT IN CONTRACT
CY	DECOMPOSED GRANITE	NIC	NUMBER
DG	DRAIN INLET	NO	NOT TO SCALE
DI	DIAMETER	NTS	NOT TO SCALE
DIA	DRAWINGS	OC	ON CENTER
DWGS	EXPANSION JOINT	OD	OUTSIDE DIAMETER
EJ	ELECTRICAL TRANSFORMER	PA	PLANTING AREA
ELE	ELEVATION	PERF	PERFORATED
ELEV	EQUAL	PERP	PERPENDICULAR
EQ	EQUIPMENT	PIP	POURED-IN-PLACE
EQUIP	ESTIMATED TOTAL WATER USE	PL	PROPERTY LINE
ETWU	EXISTING	POC	POINT OF CONNECTION
(E)	FINISH FLOOR ELEVATION	PROP	PROPOSED
FEE	FINISH GRADE	PSI	POUNDS PER SQUARE INCH
FG	FLOWLINE	PVC	POLYVINYL-CHLORIDE
FL	FACE OF BUILDING	QTY	QUANTITY
FOB		R	RADIUS
		RB	ROOTBALL

REBAR	REINFORCING BAR
REC	RECOMMENDATION
REQD	REQUIRED
RGH	ROUGH
RIM	RIM ELEVATION
RWD	REDWOOD
SAD	SEE ARCHITECTURAL DRAWINGS
SED	SEE ELECTRICAL DRAWINGS
SPD	SEE PLUMBING DRAWINGS
SSD	SEE STRUCTURAL DRAWINGS
STD	SEE CIVIL DRAWINGS
SD	STORM DRAIN
SDR	STORM / SLOT DRAIN RIM
SHT	SHEET
SJ	SCORE JOINT
SMD	SEE MECHANICAL DRAWINGS
SPCS	SPACES
SPEC'D	SPECIFIED
SPECS	SPECIFICATIONS
SQ	SQUARE
SF	SQUARE FEET
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STPA	STORMWATER TREATMENT PLANTING AREA
SW	SIDEWALK
TBD	TO BE DETERMINED
TC	TOP OF CURB
TOF	TOP OF FOOTING
TOW	TOP OF WALL
TS	TOP OF STAIRS
TW	TOP OF WALL
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
W	WATER LINE
WUCOLS	WATER USE CLASSIFICATION OF LANDSCAPE SPECIES
W/	WITH
@	AT



APPROVED: _____
DATE: _____

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2013

FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETS\SCAPE IMPROVEMENTS 1503\CA\CD\CD\RHAA\PLTL-00-GENERAL NOTES & LEGENDS.DWG (L-1-GENERAL NOTES & LEGENDS)

90% CD - NOT FOR CONSTRUCTION

	DESIGNED BY: JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	CHECKED BY: JI DRAWN BY: LY	COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT GENERAL NOTES & LEGENDS
			SCALE: DATE: 04/06/2018 FILE NO.:
REVISION	DATE	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	

FOR REDUCED PLANS
ORIGINAL SCALE IS INCHES

0 1 2 3 4

L-1
SHEET X OF X



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LANDSCAPE ARCHITECTURE + PLANNING

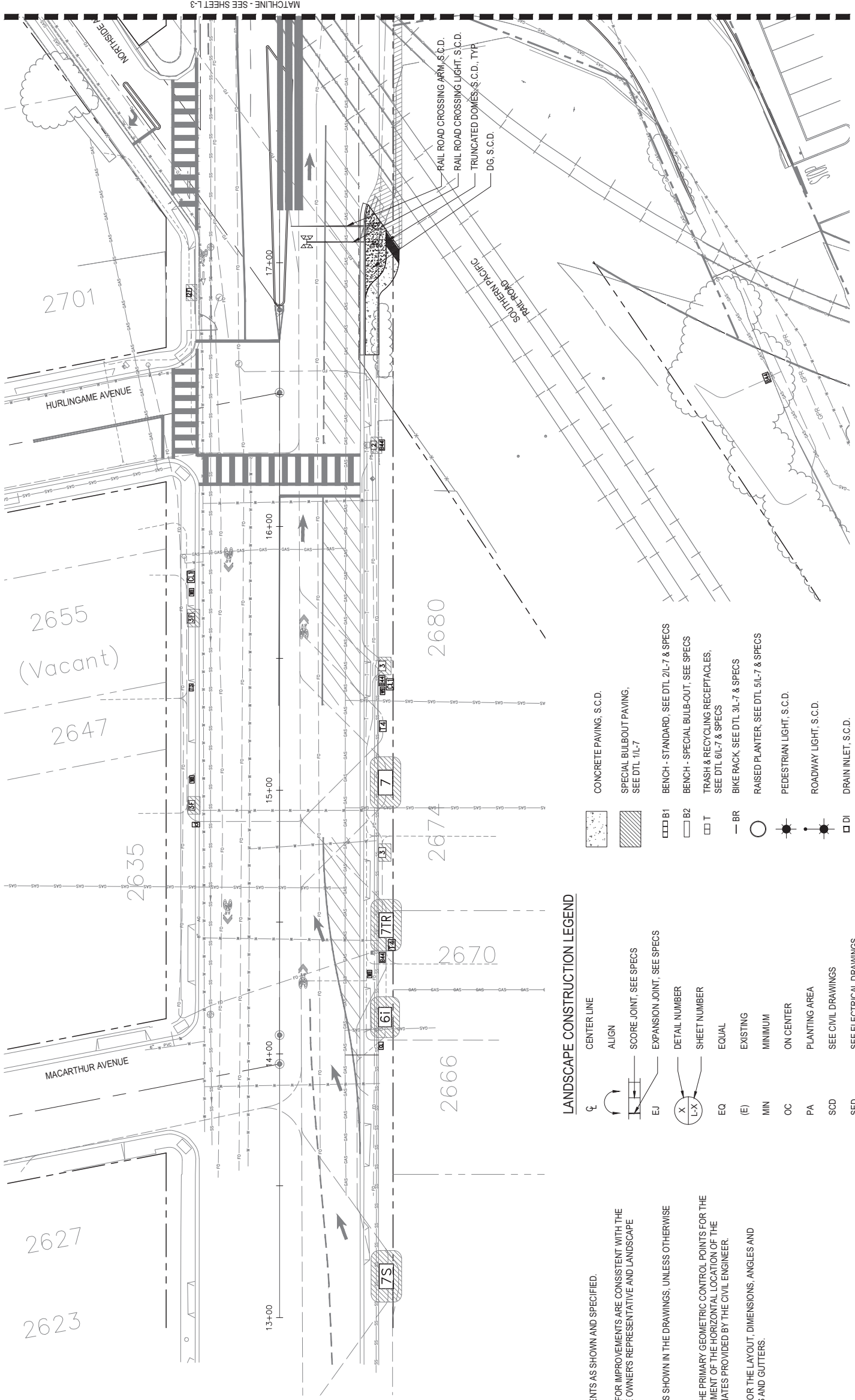
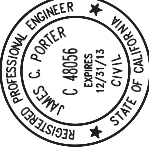
225 Miller Avenue, Mill Valley, CA 94041
T 415 383 7900 F 415 383 1433 www.rhaa.com



APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2013



MATCHLINE - SEE SHEET L-3

2701

2655 (Vacant)

2647

2635

2627

2623

MACARTHUR AVENUE

HURLINGAME AVENUE

2680

2674

2670

2666

13+00

14+00

15+00

16+00

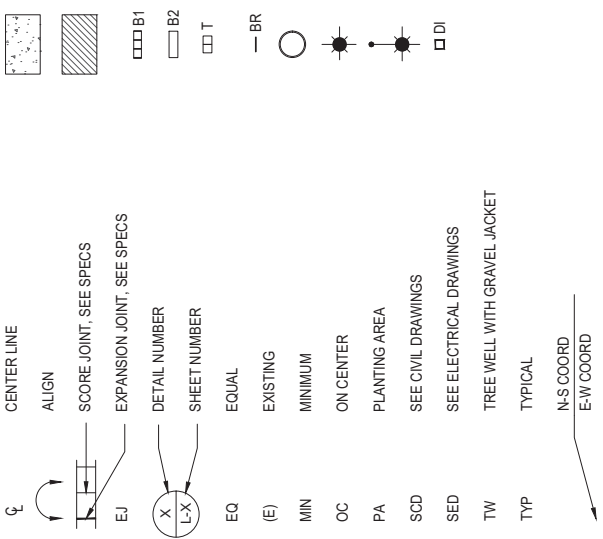
17+00

RAIL ROAD CROSSING ARM, S.C.D.
RAIL ROAD CROSSING LIGHT, S.C.D.
TRUNCATED DOMES, S.C.D., TYP
DG, S.C.D.

LANDSCAPE CONSTRUCTION NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO LAYOUT ALL IMPROVEMENTS AS SHOWN AND SPECIFIED.
2. THE CONTRACTOR SHALL FIELD VERIFY THAT ALL STAKING SET FOR IMPROVEMENTS ARE CONSISTENT WITH THE DESIGN INTENT OF THESE PLANS AND IMMEDIATELY NOTIFY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT OF ANY DISCREPANCY.
3. ALL CURVES TO BE CONTINUOUS WITH SMOOTH TRANSITIONS AS SHOWN IN THE DRAWINGS, UNLESS OTHERWISE NOTED.
4. HORIZONTAL COORDINATES AND DIMENSIONS ARE SHOWN AT THE PRIMARY GEOMETRIC CONTROL POINTS FOR THE IMPROVEMENTS TO AID THE CONTRACTOR WITH THE ESTABLISHMENT OF THE HORIZONTAL LOCATION OF THE IMPROVEMENTS AND ARE BASED ON THE SURVEY AND COORDINATES PROVIDED BY THE CIVIL ENGINEER.
5. THE CONTRACTOR SHALL REFER TO THE ENGINEERING PLANS FOR THE LAYOUT, DIMENSIONS, ANGLES AND ELEVATIONS OF ALL BUILDINGS, STRUCTURES, UTILITIES, CURBS AND GUTTERS.

LANDSCAPE CONSTRUCTION LEGEND



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DESIGNED BY:	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	DATE:	04/06/2018
CHECKED BY:	JI	SCALE:	COUNTY OF SAN MATEO
DRAWN BY:	LY	FILE NO.:	MIDDLEFIELD ROAD IMPROVEMENT PROJECT
REVISION	DATE		LANDSCAPE LEGEND & CONSTRUCTION PLAN - 1
			SAN MATEO COUNTY
			555 COUNTY CENTER, 5th FLOOR
			REDWOOD CITY, CALIFORNIA 94063

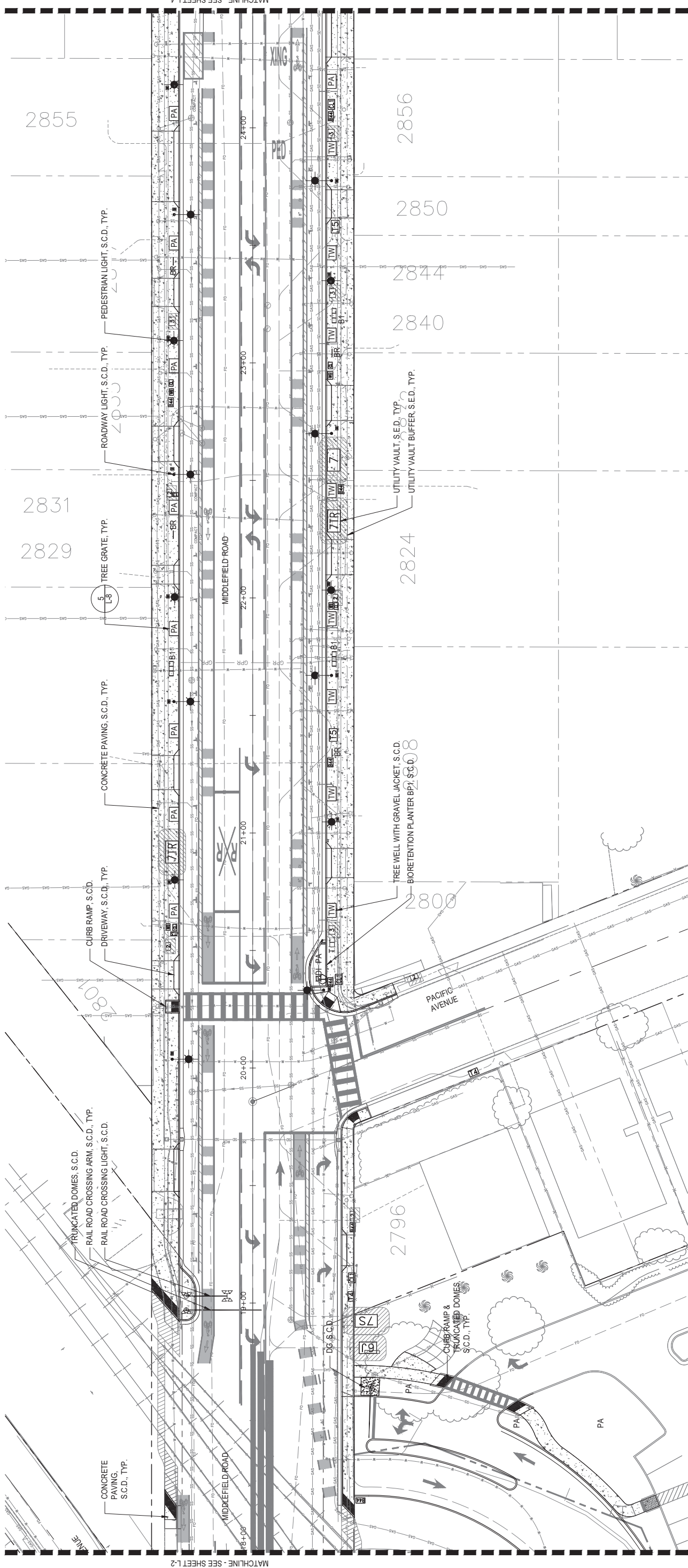
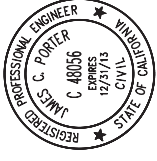
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES 0 1 2 3 4 L-2 SHEET X OF X

FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETS\CAPE IMPROVEMENTS 1503\3\CAD\CDR\RAH\PL\TL-2-LANDSCAPE LEGEND & CONSTRUCTION PLAN - 1) DWG (L-2-LANDSCAPE LEGEND & CONSTRUCTION PLAN - 1)

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. #48056 / EXPIRES 12-31-2013



MATCHLINE - SEE SHEET L-2

MATCHLINE - SEE SHEET L-4

SHEET NOTES

- 1. SEE LANDSCAPE CONSTRUCTION LEGEND ON SHEET LANDSCAPE CONSTRUCTION PLAN - 1, L-2.



90% CD - NOT FOR CONSTRUCTION

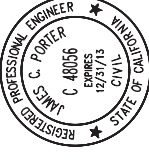
DESIGNED BY:		COUNTY OF SAN MATEO	
CHECKED BY: JI		MIDDLEFIELD ROAD IMPROVEMENT PROJECT	
DRAWN BY: LY		LANDSCAPE CONSTRUCTION PLAN - 2	
REVISION	DATE	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0	1
		2	3
		4	L-3
		SHEET X OF X	



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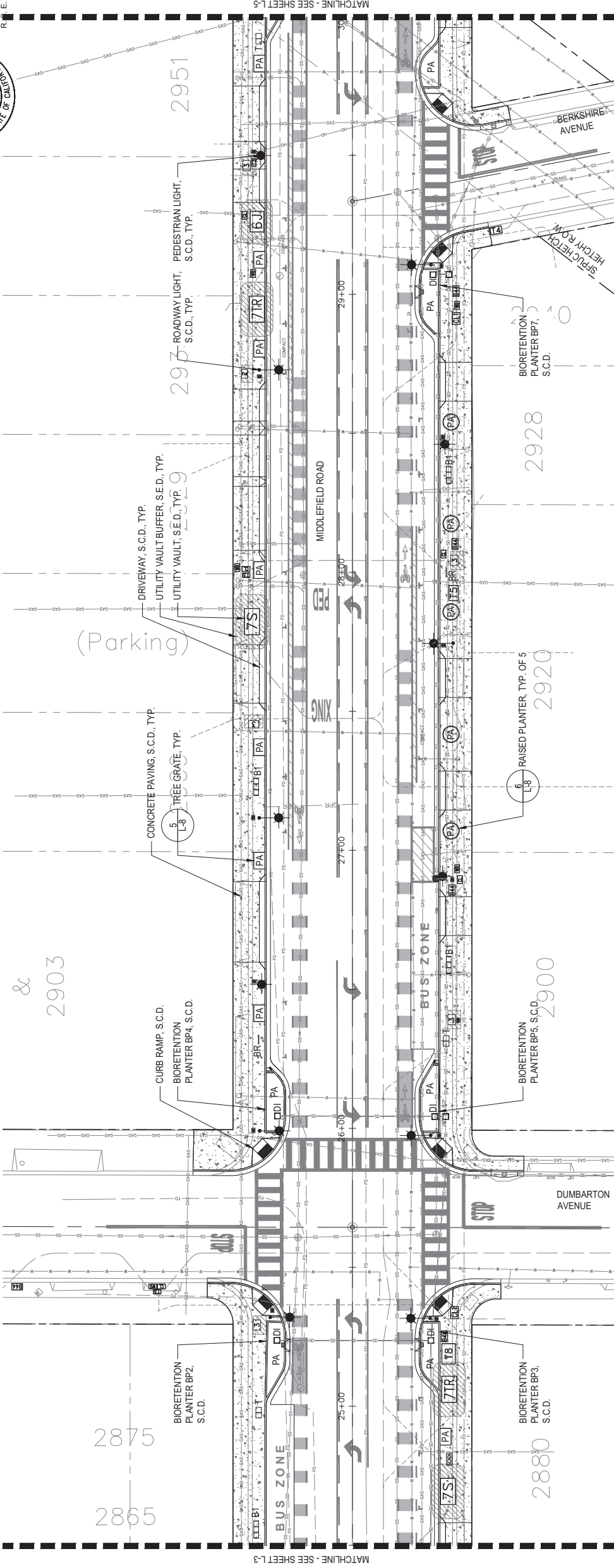


APPROVED:



DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R.E. #48056 / EXPIRES 12-31-2013



SHEET NOTES

- 1. SEE LANDSCAPE CONSTRUCTION LEGEND ON SHEET LANDSCAPE CONSTRUCTION PLAN - 1, L-2.



90% CD - NOT FOR CONSTRUCTION

DESIGNED BY:		COUNTY OF SAN MATEO	
CHECKED BY: JI		MIDDLEFIELD ROAD IMPROVEMENT PROJECT	
DRAWN BY: LY		LANDSCAPE CONSTRUCTION PLAN - 3	
REVISION	DATE	SAN MATEO COUNTY	
		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	



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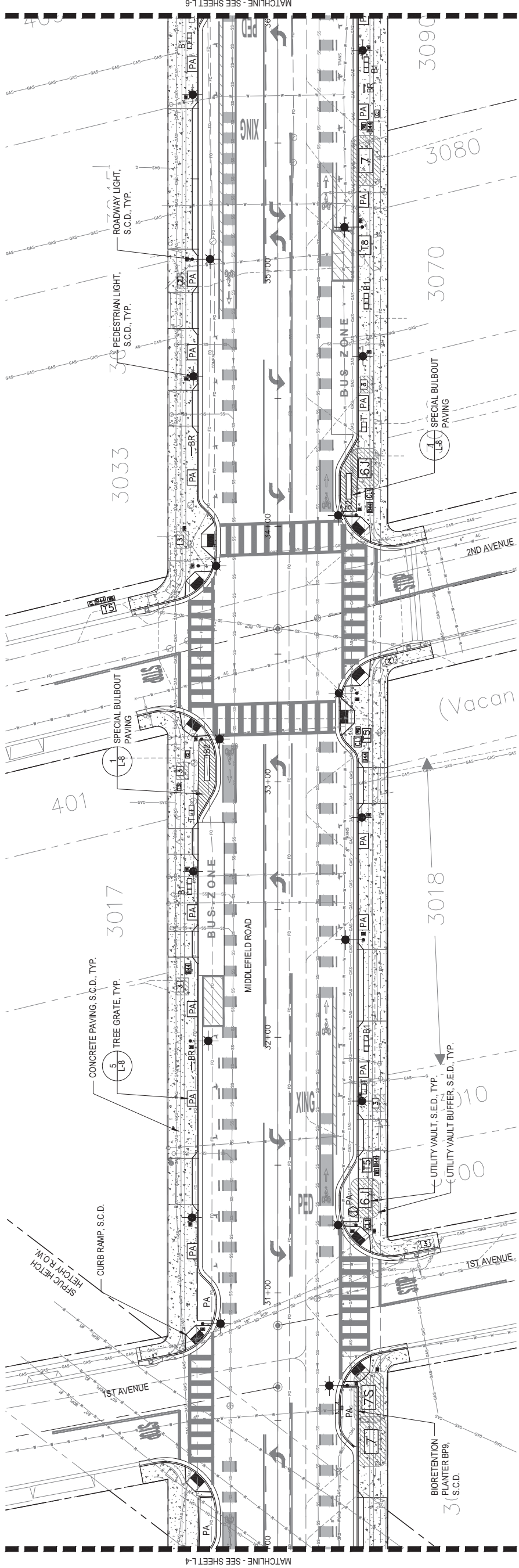
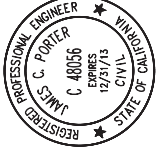
SHEET X OF X

FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETScape IMPROVEMENTS 1503\CA\CD\RHAA\PL\01-L-4 LANDSCAPE CONSTRUCTION PLAN - 3

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. #48056 / EXPIRES 12-31-2013



SHEET NOTES

- 1. SEE LANDSCAPE CONSTRUCTION LEGEND ON SHEET LANDSCAPE CONSTRUCTION PLAN - 1, L-2.



90% CD - NOT FOR CONSTRUCTION

DESIGNED BY:		COUNTY OF SAN MATEO	
CHECKED BY: JI		MIDDLEFIELD ROAD IMPROVEMENT PROJECT	
DRAWN BY: LY		LANDSCAPE CONSTRUCTION PLAN - 4	
REVISION	DATE	SAN MATEO COUNTY	
		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		SCALE: 0 1 2 3 4	
		L-5	
		SHEET X OF X	

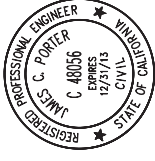


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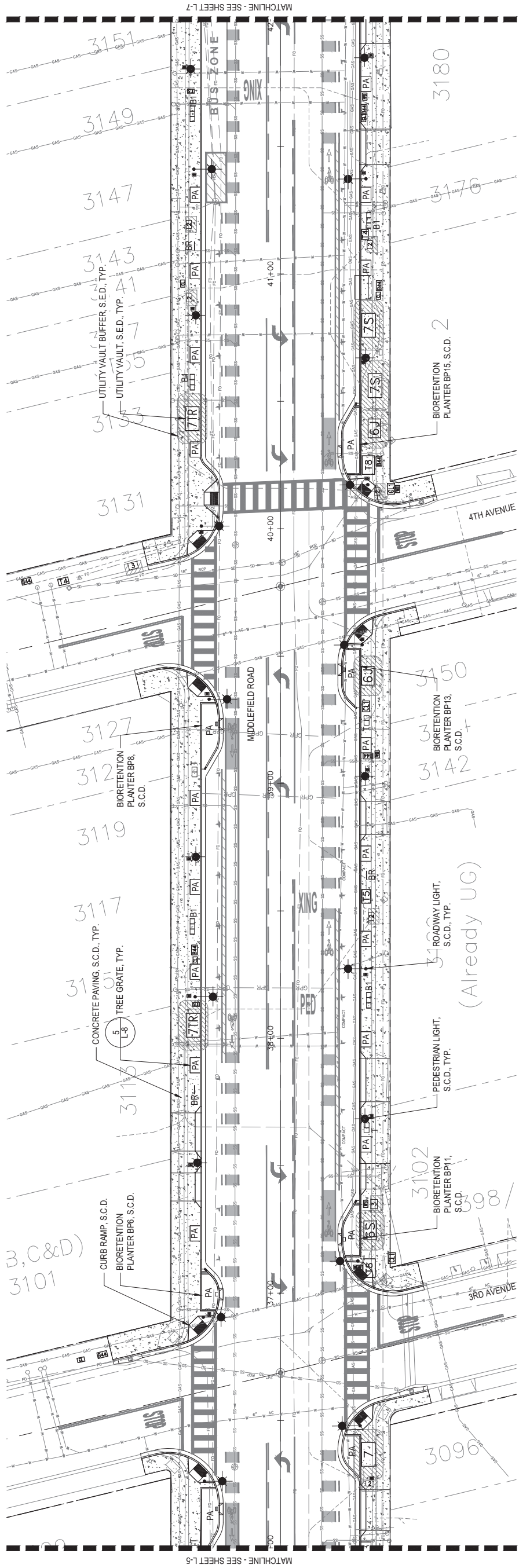
FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETScape IMPROVEMENTS 1503\3\CAD\CAD\RHAA\PL\TTL-5-LANDSCAPE CONSTRUCTION PLAN - 4.DWG (L-5-LANDSCAPE CONSTRUCTION PLAN - 4)

APPROVED:



DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. #48056 / EXPIRES 12-31-2013



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DESIGNED BY:		COUNTY OF SAN MATEO	
CHECKED BY: JI		MIDDLEFIELD ROAD IMPROVEMENT PROJECT	
DRAWN BY: LY		LANDSCAPE CONSTRUCTION PLAN - 5	
REVISION	DATE	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		SCALE: 0 10 20 40'	
		FILE NO. :	
		DATE: 04/06/2018	
		SHEET X OF X	

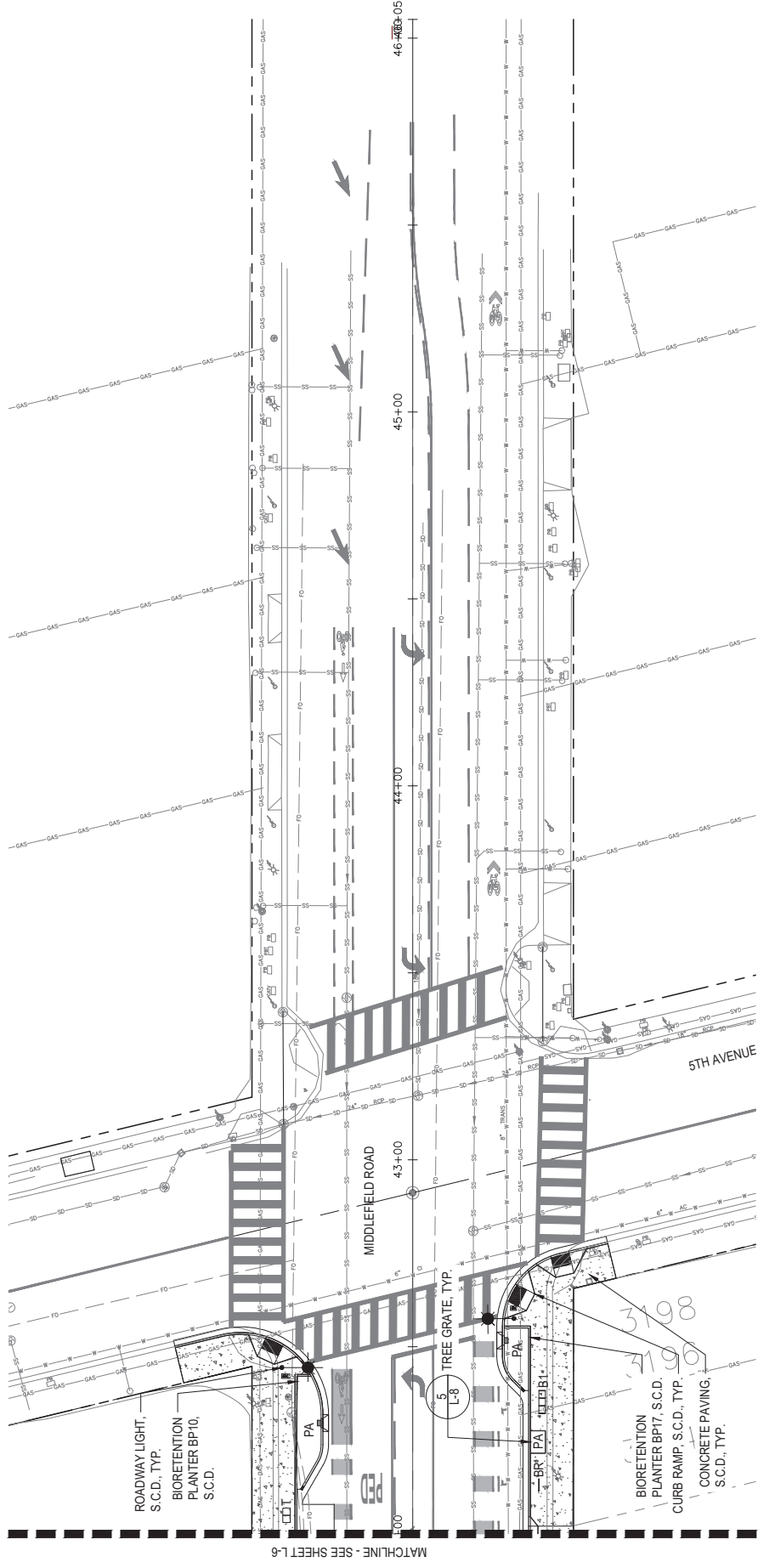
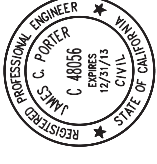


FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETScape IMPROVEMENTS 1503\CA\CD\RHAA\PL\TL-6 LANDSCAPE CONSTRUCTION PLAN - 5.DWG (L-6 LANDSCAPE CONSTRUCTION PLAN - 5)

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. #48056 / EXPIRES 12-31-2013



SHEET NOTES

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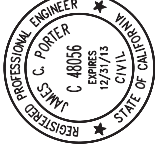
DESIGNED BY:	COUNTY OF SAN MATEO	SCALE:	
CHECKED BY:	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE:	04/06/2018
DRAWN BY:	LANDSCAPE CONSTRUCTION PLAN - 6	FILE NO.:	
REVISION	DATE	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4	
		L-7	
		SHEET X OF X	

FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETScape IMPROVEMENTS 1503\3\CAD\CDR\HA\PL\T-L-7.LANDSCAPE CONSTRUCTION PLAN - 6.DWG (L-7.LANDSCAPE CONSTRUCTION PLAN - 6)

APPROVED:

DATE:

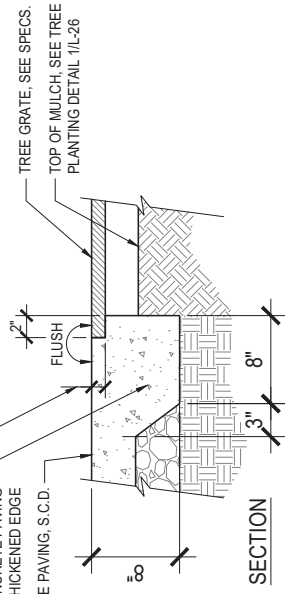
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. #48056 / EXPIRES 12-31-2013



DEPTH TO ALLOW FOR TREE GRATE TO SIT FLUSH WITH ADJACENT CONCRETE PAVING
CONCRETE PAVING THICKENED EDGE
CONCRETE PAVING, S.C.D.

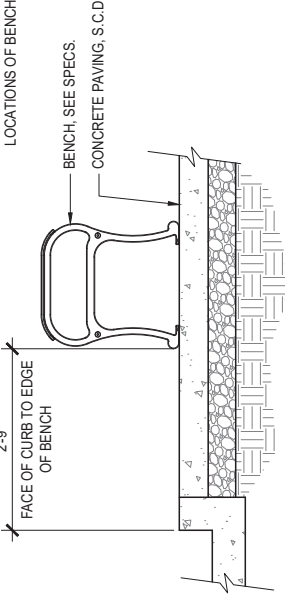
NOTES:

- 1. INSTALL TREE GRATE PER MANUFACTURERS SPECIFICATIONS.



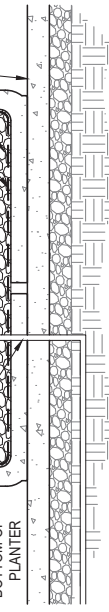
5 TREE GRATE
SCALE: 1-1/2" = 1'-0"

NOTES:
1. INSTALL PER MANUFACTURERS SPECIFICATIONS.
2. REFER TO PLANS FOR LOCATIONS OF BENCHES.



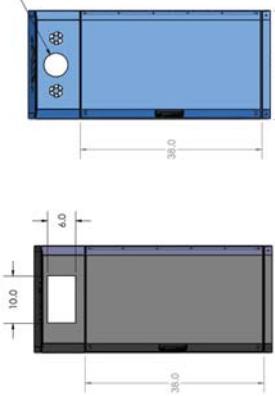
3 B1 - BENCH - SURFACE MOUNT
SCALE: 3/4" = 1'-0"

NOTES:
1. PLANTERS SHALL BE LEVEL.
PREFAB CONCRETE PLANTER PER SPECS.
72" DIA. X 36" H
IRRIGATION LINE
RIGID IRRIGATION LINE SEAL HOLE THROUGH BOTTOM OF PLANTER
2" DECORATIVE ROCK MULCH, SEE SPECS. HOLD 1/2" BELOW RIM OF PLANTER
RAISED/CONTAINED PLANTER TOPPING MIX, SEE SPECS.
RAISED/CONTAINED PLANTER BACKFILL SOIL, 50% IMPORTED PLANTING SAND AND 50% LAVA ROCK AGGREGATE, SEE SPECS.
FILTER FABRIC, SEE SPECS.
3/4" DRAIN ROCK
CONCRETE PAVING, S.C.D.



6 RAISED PLANTER
SCALE: 3/4" = 1'-0"

NOTES:
1. INSTALL PER MANUFACTURERS SPECIFICATIONS.
2. REFER TO PLANS FOR LOCATIONS OF TRASH AND RECYCLING RECEPTACLES.
3. SEE SPECS.



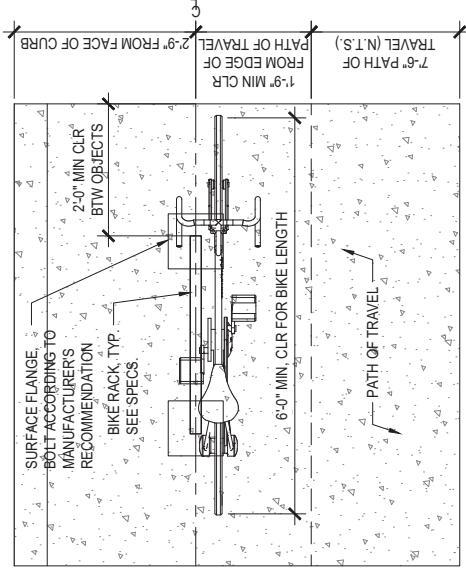
TRASH RECEPTACLE
COUNTY STANDARD

RECYCLING RECEPTACLE
COUNTY STANDARD

7 TRASH & RECYCLING RECEPTACLES
SCALE: 3/4" = 1'-0"

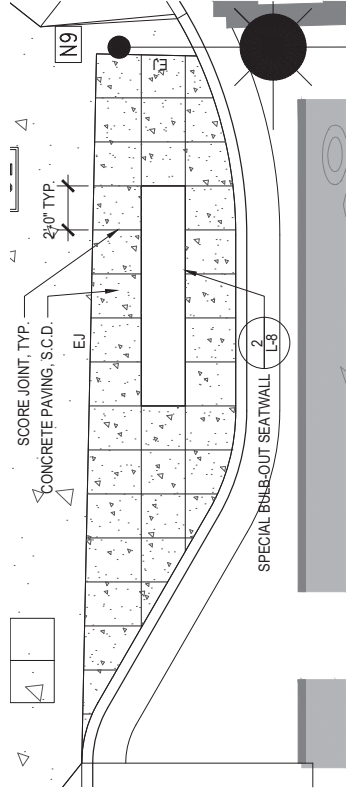
BIKE RACK, SEE SPECS.
SURFACE FLANGE, BOLT ACCORDING TO MANUFACTURER'S RECOMMENDATION PAVING, SEE PLANS
VARIES PER MANUFACTURER
2'-0" MIN CLR BTW OBJECTS

SECTION

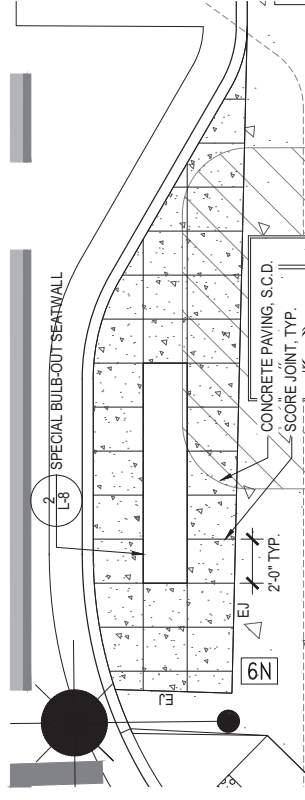


PLAN

4 BIKE RACK - CIRCULAR
SCALE: 3/4" = 1'-0"

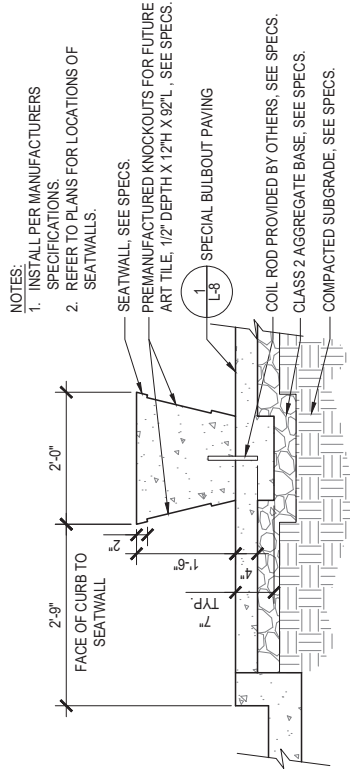


EAST SIDE



WEST SIDE

1 SPECIAL BULB-OUT PAVING
SCALE: 1/4" = 10"



NOTES:
1. INSTALL PER MANUFACTURERS SPECIFICATIONS.
2. REFER TO PLANS FOR LOCATIONS OF SEATWALLS.

SEATWALL, SEE SPECS.
PREMANUFACTURED KNOCKOUTS FOR FUTURE ART TILE, 1/2" DEPTH X 12H X 9ZL, - SEE SPECS.
COIL ROD PROVIDED BY OTHERS, SEE SPECS.
CLASS 2 AGGREGATE BASE, SEE SPECS.
COMPACTED SUBGRADE, SEE SPECS.

2 B2 - SPECIAL BULB-OUT SEATWALL
SCALE: 3/4" = 1'-0"

90% CD - NOT FOR CONSTRUCTION



TRASH RECEPTACLE
COUNTY STANDARD

RECYCLING RECEPTACLE
COUNTY STANDARD

7 TRASH & RECYCLING RECEPTACLES
SCALE: 3/4" = 1'-0"

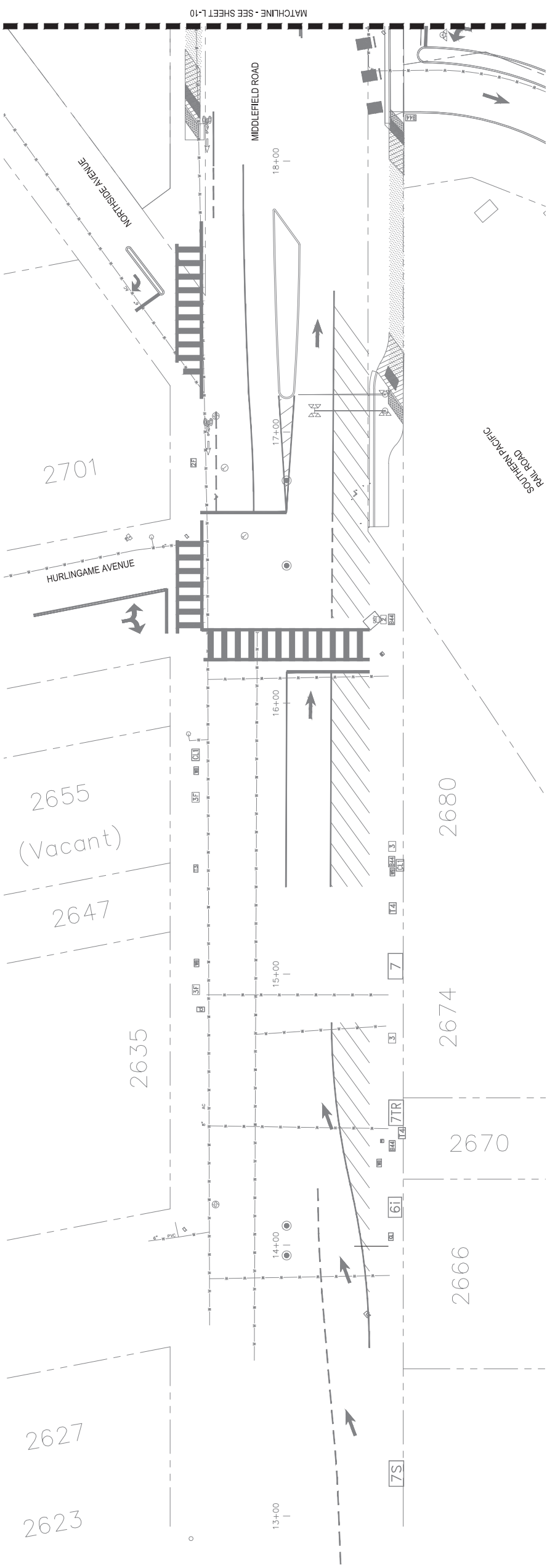
DESIGNED BY:	COUNTY OF SAN MATEO
CHECKED BY:	MIDDLEFIELD ROAD IMPROVEMENT PROJECT
DRAWN BY:	LANDSCAPE CONSTRUCTION DETAILS
DATE:	04/06/2018
REVISION	DATE
DATE	

555 COUNTY CENTER, 5th FLOOR
REDWOOD CITY, CALIFORNIA 94063

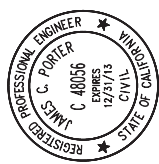
SAN MATEO COUNTY
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS

FILE NO.:
L-8

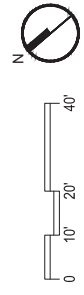
SHEET X OF X



- NOTES:
- ONE BUBBLER SYMBOL IS SHOWN AT TREES FOR GRAPHIC CLARITY ONLY. INSTALL QUANTITY AND TYPE OF BUBBLERS PER LEGEND AND DETAILS AT EACH TREE.
 - IRRIGATION EQUIPMENT MAY BE SHOWN WITHIN HARDSCAPE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PLANTED AREAS. IRRIGATION PIPE AND WIRE CROSSING BENEATH HARDSCAPE SURFACES SHALL BE CONTAINED WITHIN SLEEVING OR SCHEDULE 40 PVC CONDUIT. SLEEVING SIZE SHALL BE A MINIMUM OF TWO TIMES THE AGGREGATE DIAMETER OF ALL PIPES CONTAINED WITHIN SLEEVE. PROVIDE VERTICAL SWEEP FOR ALL ELECTRICAL CONDUIT ON EACH SIDE OF HARDSCAPE AND TERMINATE ENDS AT 12" MINIMUM DEPTH AND 12" FROM HARDSCAPE SURFACE.
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 1.5" 2001-3000 FT
 - SEE IRRIGATION NOTES AND LEGEND SHEET L-15.



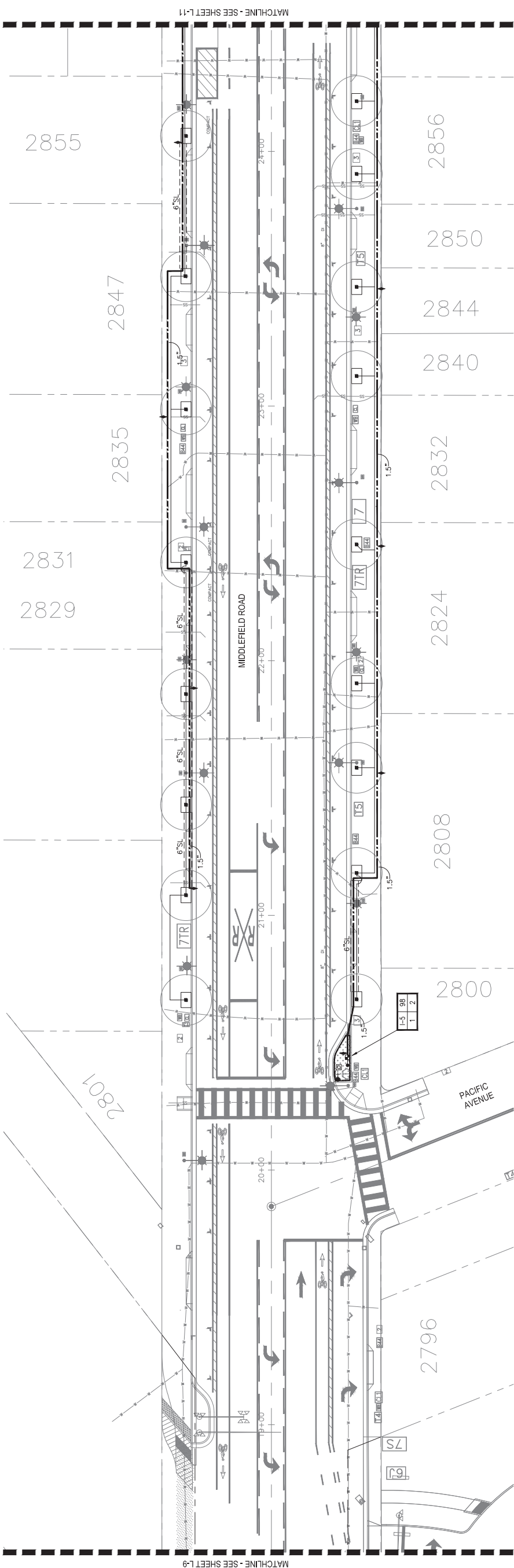
APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2013



REVISION	DATE

DESIGNED BY: JD
 CHECKED BY: JD
 DRAWN BY: IS
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 SAN MATEO COUNTY

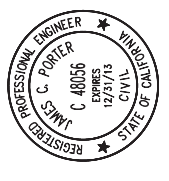
90% CD - NOT FOR CONSTRUCTION
 COUNTY OF SAN MATEO
 MIDDLEFIELD ROAD IMPROVEMENT PROJECT
 IRRIGATION PLAN - 1
 SCALE: _____
 DATE: 04/06/2016
 FILE NO.: _____
 555 COUNTY CENTER, 5th FLOOR
 REDWOOD CITY, CALIFORNIA 94063
 L-9
 SHEET X OF X



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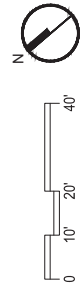
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APPROVED: _____
DATE: _____

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2013

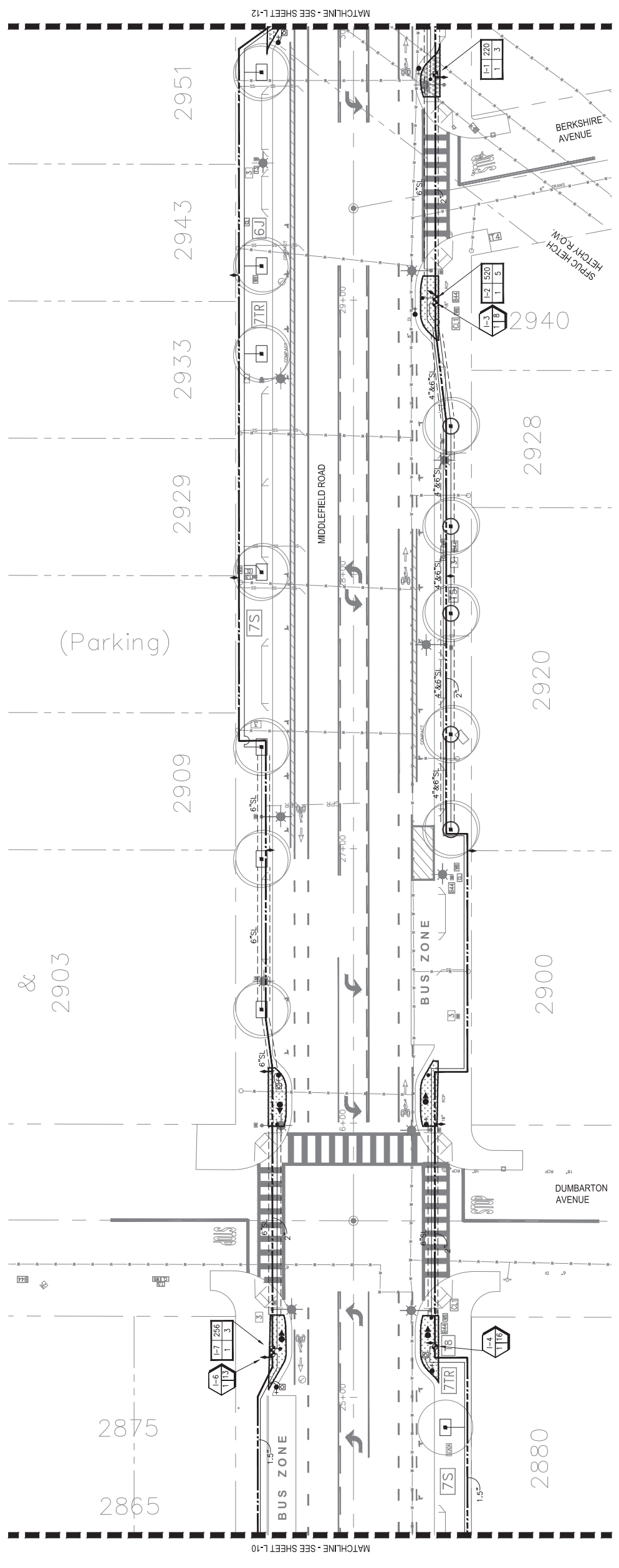


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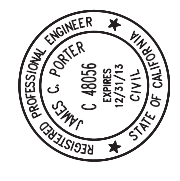
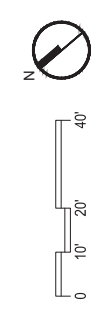
DESIGNED BY: JD	CHECKED BY: JD	DRAWN BY: IS	DATE	REVISION
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY				
COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT IRRIGATION PLAN - 2 555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063				
SCALE	DATE	FILE NO. :		
90% CD - NOT FOR CONSTRUCTION	04/06/2016			

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

L-10
SHEET X OF X



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APPROVED: _____ DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2013

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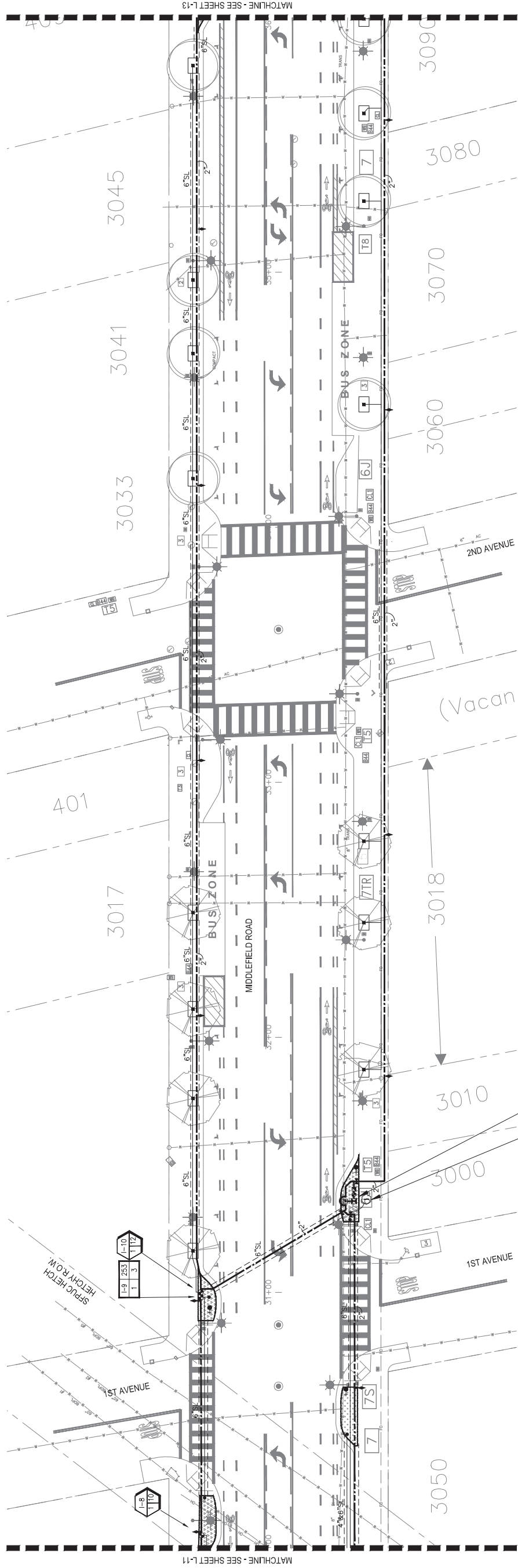
90% CD - NOT FOR CONSTRUCTION

DESIGNED BY: JD	CHECKED BY: JD	DATE	SCALE
DRAWN BY: IS	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	DATE	DATE
REVISION	DATE	FILE NO. :	FILE NO. :
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4	0 1 2 3 4

COUNTY OF SAN MATEO
 MIDDLEFIELD ROAD IMPROVEMENT PROJECT
 IRRIGATION PLAN - 3

COUNTY OF SAN MATEO PUBLIC WORKS
 555 COUNTY CENTER, 5th FLOOR
 REDWOOD CITY, CALIFORNIA 94063

L-11
 SHEET X OF X

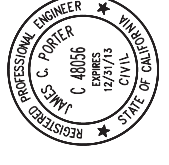
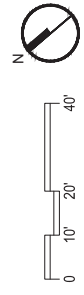


3/4" WATER METER WITH 1" SERVICE LINE FOR IRRIGATION. SEE CIVIL DRAWINGS. MAXIMUM IRRIGATION DEMAND: 13 GPM AT 65 PSI. STATIC PRESSURE AT WATER METER LOCATION.
 IRRIGATION CONTROLLER "1". MOUNT ON PEDESTAL AT THIS LOCATION. SEE ELECTRICAL DRAWING. CONNECT TO 120 VOLT A.C. ELECTRICAL SERVICE INSTALLED AT THIS LOCATION. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF ELECTRICAL SERVICE PRIOR TO CONSTRUCTION.

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811
 Know what's below.
 Call 811 before you dig.

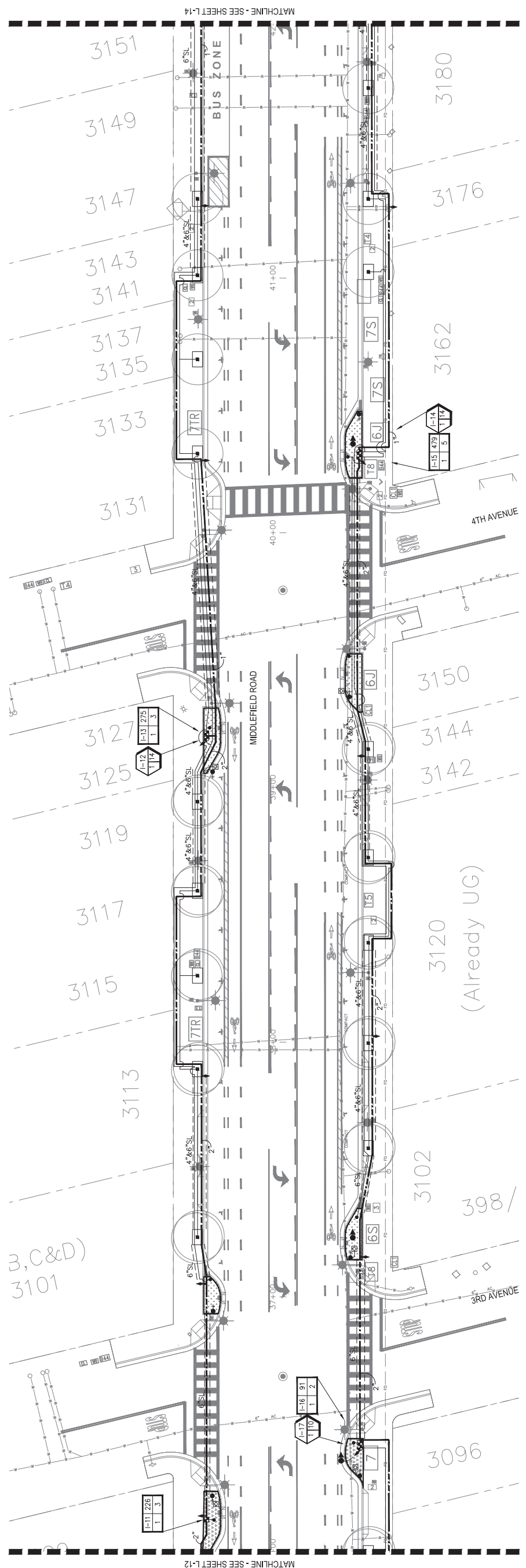
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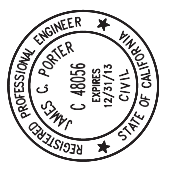
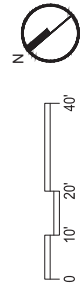
APPROVED: _____ DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2013

90% CD - NOT FOR CONSTRUCTION

DESIGNED BY: JD	CHECKED BY: JD	DRAWN BY: IS	DATE
			REVISION
			COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT IRRIGATION PLAN - 4 FILE NO.: 04062018
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY			555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES			SCALE: _____ DATE: 04/06/2018 FILE NO.: _____
0 1 2 3 4 0 10 20 40			SHEET L-12 X OF X



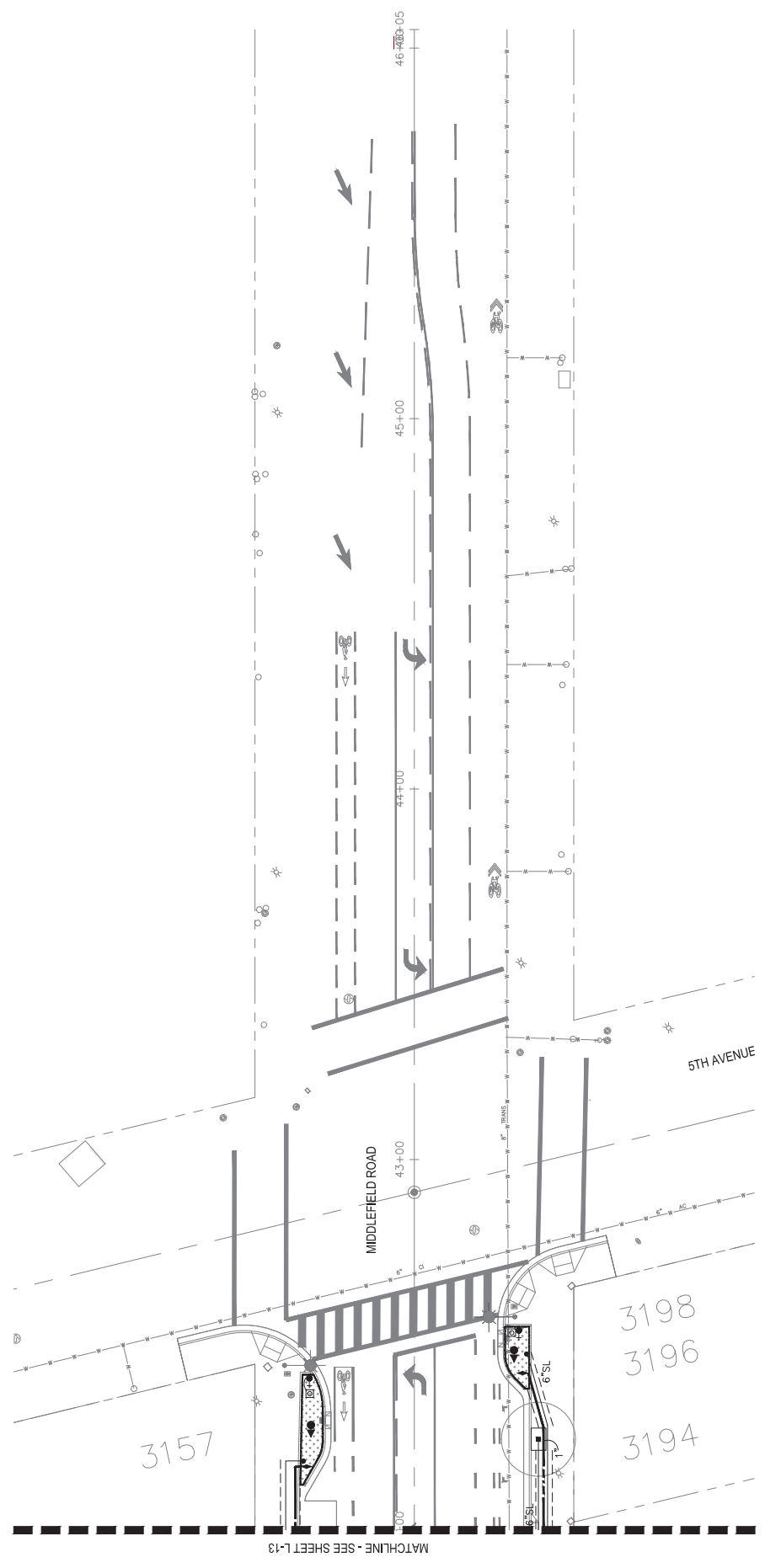
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LANDSCAPE ARCHITECTURE + PLANNING
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APPROVED: _____
DATE: _____
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2013

		COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT IRRIGATION PLAN - 5		SCALE: DATE: 04/06/2018 FILE NO.:
DESIGNED BY: JD	CHECKED BY: JD	DRAWN BY: IS	DATE	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY			REVISION	
90% CD - NOT FOR CONSTRUCTION				FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES
0 1 2 3 4				L-13 SHEET X OF X

- NOTES:
1. ONE BUBBLER SYMBOL IS SHOWN AT TREES FOR GRAPHIC CLARITY ONLY. INSTALL QUANTITY AND TYPE OF BUBBLERS PER LEGEND AND DETAILS AT EACH TREE.
 2. IRRIGATION EQUIPMENT MAY BE SHOWN WITHIN HARDSCAPE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PLANTED AREAS. IRRIGATION PIPE AND WIRE CROSSING BENEATH HARDSCAPE SURFACES SHALL BE CONTAINED WITHIN SLEEVING OR SCHEDULE 40 PVC CONDUIT. SLEEVING SIZE SHALL BE A MINIMUM OF TWO TIMES THE AGGREGATE DIAMETER OF ALL PIPES CONTAINED WITHIN SLEEVE. PROVIDE VERTICAL SWEEP FOR ALL ELECTRICAL CONDUIT ON EACH SIDE OF HARDSCAPE AND TERMINATE ENDS AT 12" MINIMUM DEPTH AND 12" FROM HARDSCAPE SURFACE.
 3. UNSIZED LATERAL LINE PIPING LOCATED DOWN STREAM OF 1" PIPING SHALL BE 3/4" IN SIZE (TYPICAL).
 4. SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:
 .75" 0-6 GPM
 1" 7-12 GPM
 1.25" 13-20 GPM
 5. SIZING OF LATERAL PIPE FOR DRIPLINE (12" O.C. GRID WITH 0.6 GPH OR LESS EMITTERS) SHALL BE AS FOLLOWS:
 .75" 0-500 FT
 1" 501-1100 FT
 1.25" 1101-2000 FT
 1.5" 2001-3000 FT
 6. SEE IRRIGATION NOTES AND LEGEND SHEET L-15.




NOTES:

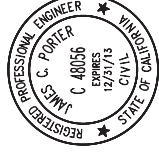
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- UNSIZE LATERAL LINE PIPING LOCATED DOWN STREAM OF 1" PIPING SHALL BE 3/4" IN SIZE (TYPICAL).
- SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

1"	0-6 GPM
.75"	7-12 GPM
1.25"	13-20 GPM
- SIZING OF LATERAL PIPE FOR DRIPLINE (12" O.C. GRID WITH 0.6 GPH OR LESS EMITTERS) SHALL BE AS FOLLOWS:


.75"	0-500 FT
1"	501-1100 FT
1.25"	1101-2000 FT
1.5"	2001-3000 FT
- SEE IRRIGATION NOTES AND LEGEND SHEET L-15.



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 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2013

	DESIGNED BY: JD	CHECKED BY: JD	DRAWN BY: IS	DATE	REVISION
	COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT IRRIGATION PLAN - 6			SAN MATEO COUNTY JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS 555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT IRRIGATION PLAN - 6				SCALE DATE: 04/06/2016 FILE NO.:	90% CD - NOT FOR CONSTRUCTION
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES					0 1 2 3 4 L-14 SHEET X OF X

IRRIGATION NOTES

- THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATING OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE; THE UNIFORM PLUMBING CODE, PUBLISHED BY THE WESTERN PLUMBING OFFICIALS ASSOCIATION; AND OTHER STATE OR LOCAL LAWS OR REGULATIONS. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR REGULATIONS. THE CONTRACTOR SHALL FURNISH WITHOUT ANY EXTRA CHARGE, ANY ADDITIONAL MATERIAL AND LABOR WHEN REQUIRED BY THE COMPLIANCE WITH THESE CODES AND REGULATIONS.
- THE CONTRACTOR SHALL COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LAYOUT AND INSTALLATION OF THE PLANT MATERIALS TO INSURE THAT THERE WILL BE COMPLETE AND UNIFORM IRRIGATION COVERAGE OF PLANTING IN ACCORDANCE WITH THESE DRAWINGS, AND CONTRACT DOCUMENTS. THE IRRIGATION LAYOUT SHALL BE CHECKED BY THE CONTRACTOR AND OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO CONSTRUCTION TO DETERMINE IF ANY CHANGES, DELETIONS, OR ADDITIONS ARE REQUIRED. IRRIGATION SYSTEM SHALL BE INSTALLED AND TESTED PRIOR TO INSTALLATION OF PLANT MATERIAL.
- THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.
- IT IS THE RESPONSIBILITY OF THE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLER(S) TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS, SLOPES, SUN, SHADE AND WIND EXPOSURE.
- IT IS THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR TO PROVIDE 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO THE CONTROLLER LOCATION(S). IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE ELECTRICAL SERVICE STUB-OUT TO THE CONTROLLER(S). PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH LOCAL CODES.
- PROVIDE EACH CONTROLLER WITH ITS OWN GROUND ROD. SEPARATE THE GROUND RODS BY A MINIMUM OF EIGHT FEET. THE GROUND ROD SHALL BE AN EIGHT FOOT LONG BY 5/8" DIAMETER U.L. APPROVED COPPER CLAD ROD. INSTALL NO MORE THAN 6" OF THE GROUND ROD ABOVE FINISH GRADE. CONNECT #6 GAUGE WIRE WITH A U.L. APPROVED GROUND ROD CLAMP TO ROD AND BACK TO GROUND. SCREW AT BASE OF CONTROLLER WITH APPROPRIATE CONNECTOR. MAKE THIS WIRE AS SHORT AS POSSIBLE, AVOIDING KINKS OR BENDING.
- PROVIDE EACH IRRIGATION CONTROLLER WITH ITS OWN INDEPENDENT LOW VOLTAGE COMMON GROUND WIRE.
- SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE CONTRACTOR, THE OWNER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER.
- IRRIGATION CONTROL WIRES: SOLID COPPER WITH U.L.

- APPROVAL FOR DIRECT BURIAL IN GROUND. CONTROL WIRE SERVING REMOTE CONTROL VALVES: SIZE #14-1 WIRE WITH A UNIQUE COLOR INSULATING JACKET FOR EACH CONTROLLER. COMMON GROUND WIRE: SIZE #12-1 WIRE WITH A WHITE I INSULATING JACKET AND A STRIPE OF COLOR WHICH MATCH'S THE CONTROL WIRE. COLOR CHOICE FOR SPECIFIC CONTROLLER. SPARE WIRE: #14-1 WIRE WITH BLACK INSULATION JACKET. SPLICES SHALL BE MADE WITH 3M-SCOTCHLOC SEAL PACKS OR APPROVED EQUAL.
- INSTALL TWO CONTROL WIRES ALONG THE ENTIRE WIRE ROUTING FOR EACH CONTROLLER. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.
- SPlicing OF LOW VOLTAGE WIRES IS PERMITTED IN VALVE BOXES ONLY. LEAVE A 36" LONG, 1" DIAMETER COIL OF EXCESS WIRE AT EACH SPLICE AND A 36" LONG EXPANSION LOOP EVERY 100 FEET ALONG WIRE RUN. TAPE WIRES TOGETHER EVERY TEN FEET. DO NOT TAPE WIRES TOGETHER WHERE CONTAINED WITHIN SLEEVING OR CONDUIT.
- INSTALL GREEN PLASTIC (WITHIN PLANTING AREAS) OR CONCRETE (WITHIN PAVING) VALVE BOXES WITH BOLT DOWN, NON HINGED COVER MARKED "IRRIGATION". BOX BODY SHALL HAVE KNOCK OUTS, ACCEPTABLE VALVE BOX MANUFACTURER'S INCLUDE NDS, CARSON OR APPROVED EQUAL.
- INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, INSTALL EACH BOX AN EQUAL DISTANCE FROM THE WALK, CURB, BUILDING OR LANDSCAPE FEATURE AND PROVIDE 12" BETWEEN BOX TOPS. ALIGN THE SHORT SIDE OF RECTANGULAR VALVE BOXES PARALLEL TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE.
- THE CONTRACTOR SHALL LABEL CONTROL LINE WIRE AT EACH REMOTE CONTROL VALVE WITH A 2 1/4" X 2 3/4" POLYURETHANE I.D. TAG, INDICATING IDENTIFICATION NUMBER OF VALVE (CONTROLLER AND STATION NUMBER). ATTACH LABEL TO CONTROL WIRE. THE CONTRACTOR SHALL PERMANENTLY STAMP ALL VALVE BOX LIDS WITH APPROPRIATE IDENTIFICATION AS NOTED IN CONSTRUCTION DETAILS.
- THE REMOTE CONTROL VALVES SPECIFIED ON THE DRAWINGS IS A PRESSURE REDUCING TYPE. SET THE DISCHARGE PRESSURE AS FOLLOWS:
 - DRIP EMITTERS=35 PSI
 - BUBBLERS= 30 PSI
- INSTALL A GATE VALVE TO ISOLATE EACH REMOTE CONTROL VALVE OR GROUP OF RCV'S LOCATED TOGETHER. GATE VALVE SIZE SHALL BE SAME AS THE LARGEST REMOTE CONTROL VALVE IN MANIFOLD.
- FLUSH AND ADJUST IRRIGATION OUTLETS AND NOZZLES FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF THE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS AND THROTTLLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH CONTROL ZONE.
- LOCATE EMITTER OUTLETS ON UPHILL SIDE OF PLANT OR TREE.
- LOCATE BUBBLERS ON UPHILL SIDE OF PLANT OR TREE.
- NOTIFY LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.
- THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE. READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.
- IRRIGATION DEMAND: REFER TO PLANS.
- PIPE THREAD SEALANT COMPOUND SHALL BE RECTOR SEAL #5.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES IN THE IRRIGATION LAYOUT DUE TO OBSTRUCTIONS NOT SHOWN ON THE IRRIGATION

- DRAWINGS SUCH AS LIGHTS, FIRE HYDRANTS, SIGNS, ELECTRICAL ENCLOSURES, ETC.
- THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR CHANGES IN THE IRRIGATION LAYOUT AND VALVE ZONING DUE TO VARIATIONS IN THE EXISTING SITE CONDITIONS SUCH AS EXPOSURE FROM BUILDINGS, TRELLISES, TREES, ETC. AS WELL AS SLOPE AND SOIL CONDITIONS. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT OF THE PROPOSED CHANGES PRIOR TO INSTALLATION FOR APPROVAL.
- THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE IRRIGATION SYSTEM DESIGN IF THE PLANTING DESIGN CHANGES FROM THE ORIGINAL PLAN AND NEEDS TO ADAPT TO THE NEW PLANTING DESIGN. THE LANDSCAPE CONTRACTOR NEEDS TO NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT OF PROPOSED CHANGES PRIOR TO INSTALLATION FOR APPROVAL.
- WHEN WORK OF THIS SECTION HAS BEEN COMPLETED AND SUCH OTHER TIMES AS MAY BE DIRECTED, REMOVE ALL TRASH, DEBRIS, SURPLUS MATERIALS AND EQUIPMENT FROM SITE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLEMENTAL HAND WATERING OF ALL PLANT MATERIAL WITHIN DRIFLINE AREAS UNTIL THE PLANTS ARE SUFFICIENTLY ESTABLISHED.
- VERIFY LOCATIONS OF ALL IRRIGATION COMPONENTS INSTALLED WITHIN A VALVE BOX WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. DO NOT INSTALL UNTIL LANDSCAPE ARCHITECT PROVIDES ACCEPTABLE LOCATIONS.

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	NOZZLE GPM	OPERATING PSI	OPERATING RADIUS (FEET)
■	1401 SERIES/ RWS-M-B-1402	RAIN BIRD BUBBLERS AT ROOT BALL, 1" ON GRADE AND 2-18" DEEP ROOT WATERING TUBES	0.25/0.5	30	TRICKLE
⬮	T-YD-500-34	TORO AIR RELIEF VALVE			
⬮	T-FUJ16	TORO FLUSH VALVE			
⊗	570Z-6P-SI-PRX/ O-T-5-QP	TORO POP-UP SPRINKLER WITH SIDE INLET AND A CLOSED 5' NOZZLE TO BE USED AS DRIFLINE INDICATOR			
•	—	APPROXIMATE CONNECTION POINT BETWEEN DRIFLINE TUBING AND PVC SUPPLY. REFER TO DRIFLINE TUBING CONNECTION DETAIL FOR MORE INFORMATION.			
⊖	DWS-100-PRV	GRISWOLD REMOTE CONTROL VALVE WITH A PRESSURE REGULATOR			
⊖	DWS-100-PRV/ T-ALFD10150-L	GRISWOLD REMOTE CONTROL VALVE WITH A PRESSURE REGULATOR (SET TO 40 PSI) AND A TORO 1" DISC FILTER			
⬮	33 DNP	RAIN BIRD QUICK COUPLING VALVE			
⬮	LGT-XX-SS	LEEMCO STAINLESS STEEL GATE VALVE (LINE SIZE)-2.5" AND SMALLER			
⬮	2000-1"	GRISWOLD MASTER VALVE (NORMALLY CLOSED)			
⬮	FS-B100	RAIN MASTER FLOW SENSOR			
⬮	975XLSEU-2"/VIT SBBC-30AL/PBB-30	WILKINS REDUCED PRESSURE BACKFLOW ASSEMBLY WITH VIT STRONGBOX ENCLOSURE AND FREEZE BLANKET.			
⬮	EOP-241-SPED	RAIN MASTER EAGLE PLUS CONTROLLER IN A STAINLESS STEEL PEDESTAL ENCLOSURE. INCLUDES 1-CARD AND TWO YEARS RAIN MASTER 1-CENTRAL SERVICE.			
—	RM-ISVC-2Y	ADDITIONAL 2 YEARS OF PREMIUM (FREEDOM) WIRELESS DATA SERVICE AND ZIPET FOR RAIN MASTER 1-CENTRAL CONTROL SYSTEM			
⊞	RS-500	IRRITROL WIRELESS RAIN SENSOR, MOUNT ON THE SIDE OF THE CONTROLLER ENCLOSURE			
		CONTROLLER AND STATION NUMBER			
		FLOW (GPM)			
		REMOTE CONTROL VALVE SIZE (IN INCHES)			
		ASSOCIATED REMOTE CONTROL VALVE			
		CONTROLLER AND STATION NUMBER			
		AREA (SQ. FT.)			
		FLOW (GPM)			
		ASSOCIATED REMOTE CONTROL VALVE			
		MAIN LINE: 2" AND SMALLER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 18" COVER.			
		LATERAL LINE: 3/4" AND LARGER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.			
		SLEEVING: SCHEDULE 40 PVC PLASTIC PIPE. COVER TO BE AS INDICATED IN SPECIFICATIONS OR AS INDICATED ABOVE FOR PIPE DEPTH OF COVER.			

IRRIGATION LEGEND

SYMBOL	DESCRIPTION
	PVC LATERAL
	DRIFLINE REMOTE CONTROL VALVE
	DRIP ZONE
	EXHAUST HEADER
	SUPPLY HEADER
	PVC LATERAL
	DRIFLINE REMOTE CONTROL VALVE
	DRIP ZONE
	EXHAUST HEADER
	SUPPLY HEADER

TORO DL2000 SERIES DRIFLINE WITH TRI-LOC FITTINGS, PART #RGP-212. TUBING TO BE INSTALLED 4" BELOW GRADE IN A 12" O.C. GRID ACCORDING TO DETAILS. SIZE EXHAUST HEADERS AS FOLLOWS: 1": 0-10 GPM, 1.25": 11-20 GPM. ALL EXHAUST HEADERS SHALL BE 1" SCH 40 PVC OR 1" SCH 40 FLEXIBLE PVC. USE SCH. 40 PVC SOLVENT WELD FITTINGS. EXTEND PVC HEADERS TO THE ENDS OF ALL DRIP ZONES TO BALANCE FLOW IF REQUIRED. SEE DETAILS FOR FURTHER INFORMATION.

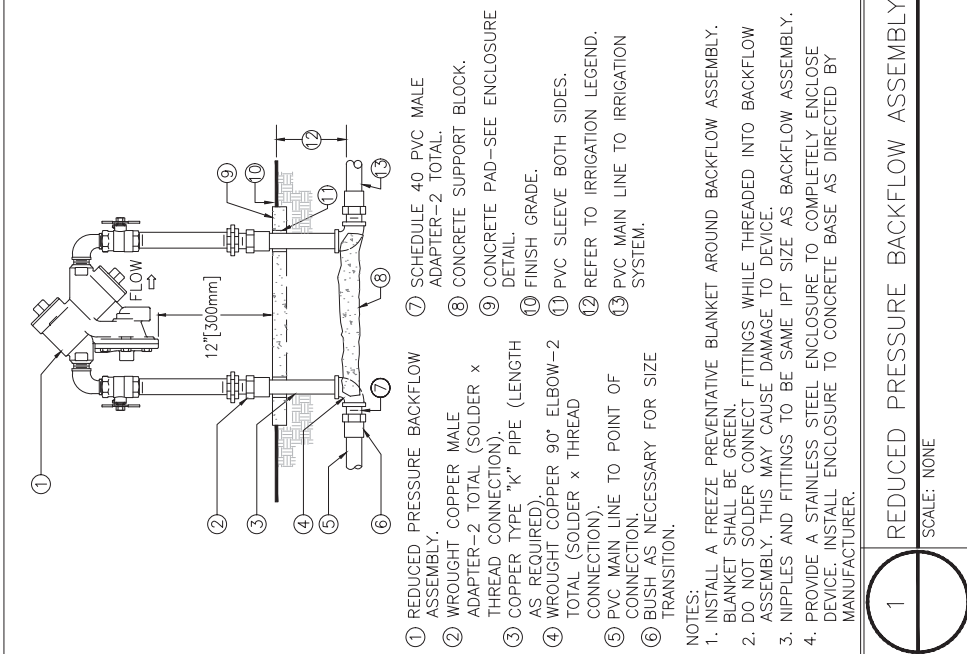
TORO DL2000 SERIES DRIFLINE WITH TRI-LOC (BIOSWALES); FITTINGS, PART #RGP-412. TUBING TO BE INSTALLED 4" BELOW GRADE IN A 12" O.C. GRID ACCORDING TO DETAILS. SIZE EXHAUST HEADERS AS FOLLOWS: 1": 0-10 GPM, 1.25": 11-20 GPM. ALL EXHAUST HEADERS SHALL BE 1" SCH 40 PVC OR 1" SCH 40 FLEXIBLE PVC. USE SCH. 40 PVC SOLVENT WELD FITTINGS. EXTEND PVC HEADERS TO THE ENDS OF ALL DRIP ZONES TO BALANCE FLOW IF REQUIRED. SEE DETAILS FOR FURTHER INFORMATION.



DESIGNED BY: JD	DATE
CHECKED BY: JB	DATE
DRAWN BY: IS	DATE
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	DATE
SAN MATEO COUNTY	DATE

90% CD - NOT FOR CONSTRUCTION	
COUNTY OF SAN MATEO	SCALE
MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04/06/2016
IRRIGATION NOTES AND LEGEND	FILE NO.:
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR
SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063

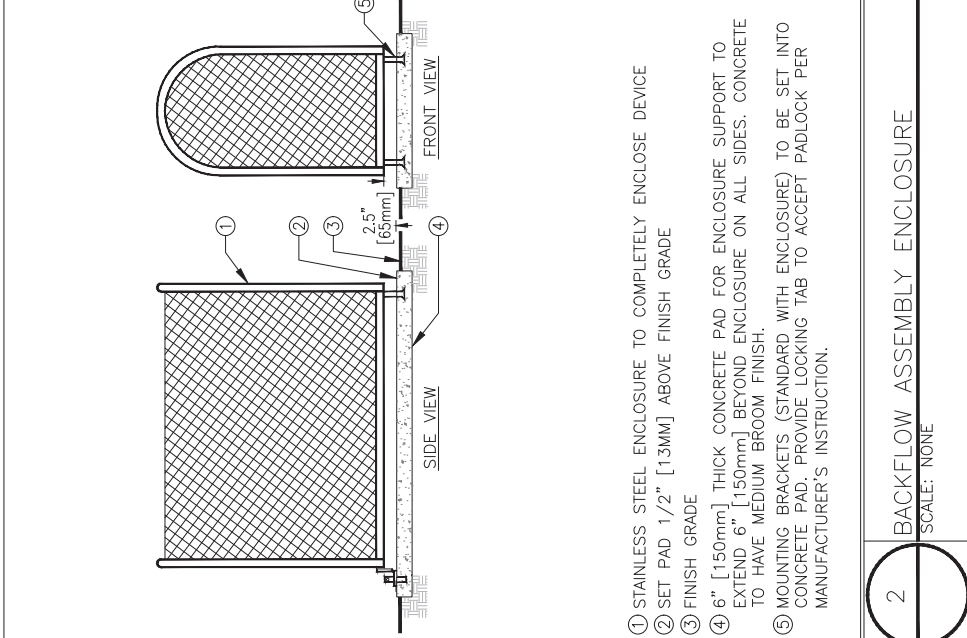
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- 1 REDUCED PRESSURE BACKFLOW ASSEMBLY.
- 2 WROUGHT COPPER MALE ADAPTER-2 TOTAL (SOLDER x THREAD CONNECTION).
- 3 COPPER TYPE "K" PIPE (LENGTH AS REQUIRED).
- 4 WROUGHT COPPER 90° ELBOW-2 TOTAL (SOLDER x THREAD CONNECTION).
- 5 PVC MAIN LINE TO POINT OF CONNECTION.
- 6 BUSH AS NECESSARY FOR SIZE TRANSITION.
- 7 SCHEDULE 40 PVC MALE ADAPTER-2 TOTAL.
- 8 CONCRETE SUPPORT BLOCK.
- 9 CONCRETE PAD-SEE ENCLOSURE DETAIL.
- 10 FINISH GRADE.
- 11 PVC SLEEVE BOTH SIDES.
- 12 REFER TO IRRIGATION LEGEND.
- 13 PVC MAIN LINE TO IRRIGATION SYSTEM.

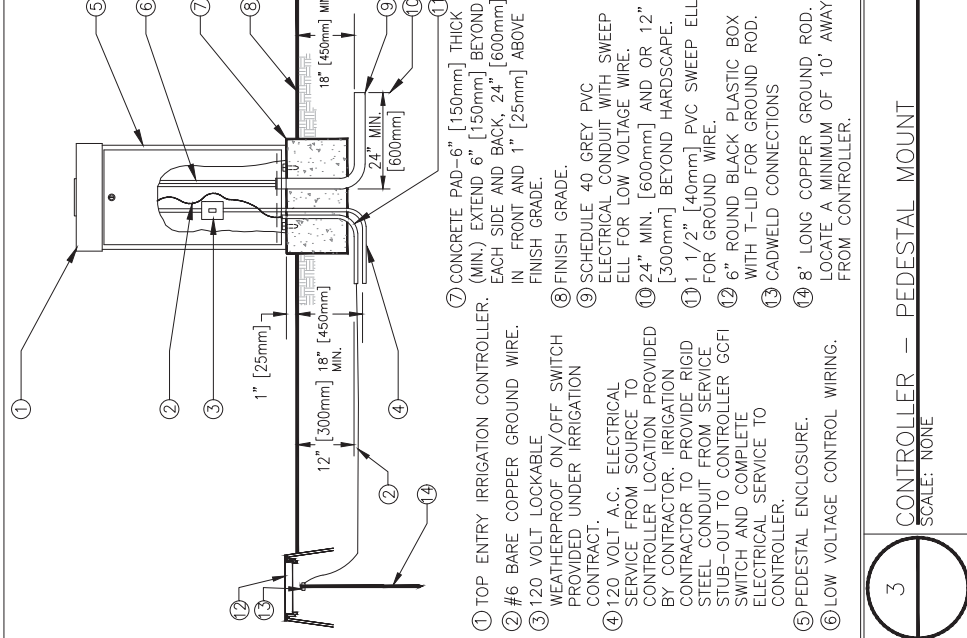
NOTES:
 1. INSTALL A FREEZE PREVENTATIVE BLANKET AROUND BACKFLOW ASSEMBLY. BLANKET SHALL BE GREEN.
 2. DO NOT SOLDER CONNECT FITTINGS WHILE THREADED INTO BACKFLOW ASSEMBLY. THIS MAY CAUSE DAMAGE TO DEVICE.
 3. NIPPLES AND FITTINGS TO BE SAME IPT SIZE AS BACKFLOW ASSEMBLY.
 4. PROVIDE A STAINLESS STEEL ENCLOSURE TO COMPLETELY ENCLOSE DEVICE. INSTALL ENCLOSURE TO CONCRETE BASE AS DIRECTED BY MANUFACTURER.

1 REDUCED PRESSURE BACKFLOW ASSEMBLY
 SCALE: NONE



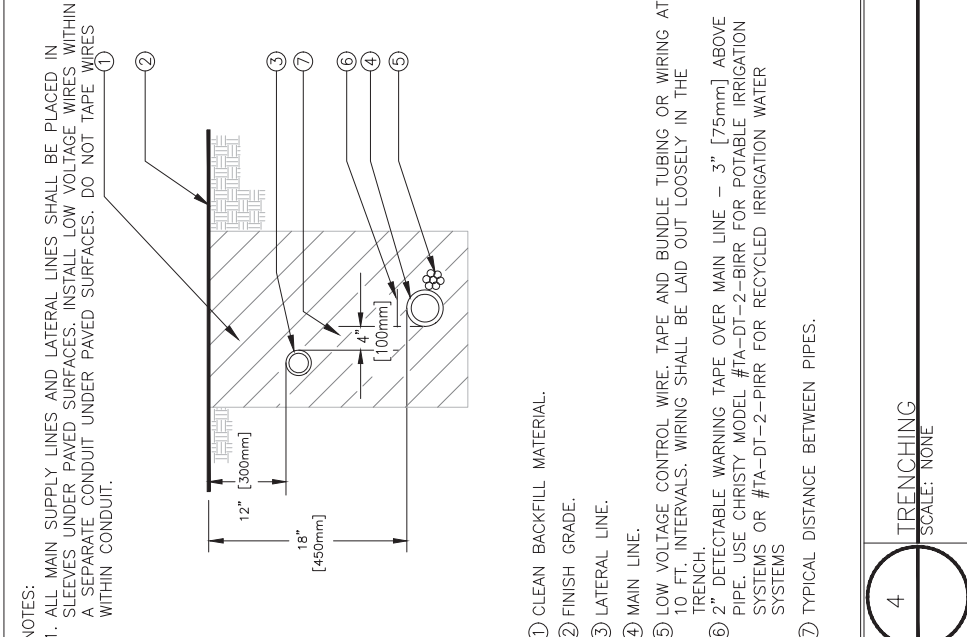
- 1 STAINLESS STEEL ENCLOSURE TO COMPLETELY ENCLOSE DEVICE
- 2 SET PAD 1/2" [13MM] ABOVE FINISH GRADE
- 3 FINISH GRADE
- 4 6" [150mm] THICK CONCRETE PAD FOR ENCLOSURE SUPPORT TO EXTEND 6" [150mm] BEYOND ENCLOSURE ON ALL SIDES. CONCRETE TO HAVE MEDIUM BROOM FINISH.
- 5 MOUNTING BRACKETS (STANDARD WITH ENCLOSURE) TO BE SET INTO CONCRETE PAD. PROVIDE LOCKING TAB TO ACCEPT PADLOCK PER MANUFACTURER'S INSTRUCTION.

2 BACKFLOW ASSEMBLY ENCLOSURE
 SCALE: NONE



- 1 TOP ENTRY IRRIGATION CONTROLLER. (MIN.) EXTEND 6" [150mm] THICK (MIN.) EXTEND 6" [150mm] BEYOND IN FRONT AND 1" [25mm] ABOVE FINISH GRADE.
- 2 #6 BARE COPPER GROUND WIRE.
- 3 WEATHERPROOF ON/OFF SWITCH PROVIDED UNDER IRRIGATION CONTRACT.
- 4 120 VOLT A.C. ELECTRICAL SERVICE FROM SOURCE TO CONTROLLER LOCATION PROVIDED BY CONTRACTOR. IRRIGATION CONTRACTOR TO PROVIDE RIGID STEEL CONDUIT FROM SERVICE STUB-OUT TO CONTROLLER GCFI SWITCH AND COMPLETE ELECTRICAL SERVICE TO CONTROLLER.
- 5 PEDESTAL ENCLOSURE.
- 6 LOW VOLTAGE CONTROL WIRING.
- 7 CONCRETE PAD-6" [150mm] THICK (MIN.) EXTEND 6" [150mm] BEYOND IN FRONT AND 1" [25mm] ABOVE FINISH GRADE.
- 8 SCHEDULE 40 GREY PVC ELECTRICAL CONDUIT WITH SWEEP ELL FOR LOW VOLTAGE WIRE.
- 9 24" MIN. [600mm] AND OR 12" [300mm] BEYOND HARDSCAPE.
- 10 1 1/2" [40mm] PVC SWEEP ELL FOR GROUND WIRE.
- 11 6" ROUND BLACK PLASTIC BOX WITH T-LID FOR GROUND ROD.
- 12 CADWELD CONNECTIONS
- 13 8' LONG COPPER GROUND ROD. LOCATE A MINIMUM OF 10' AWAY FROM CONTROLLER.

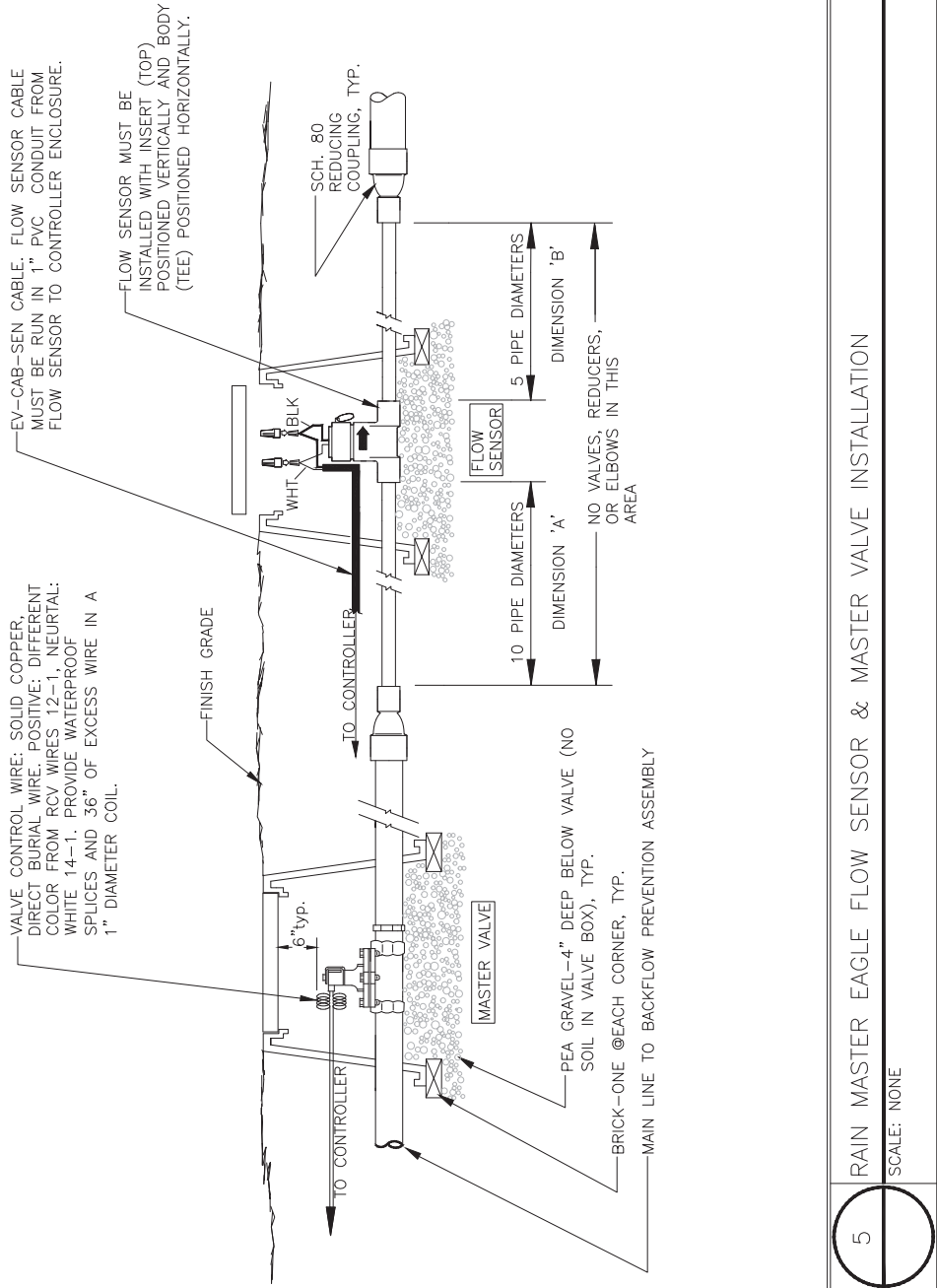
3 CONTROLLER - PEDESTAL MOUNT
 SCALE: NONE



- 1 CLEAN BACKFILL MATERIAL.
- 2 FINISH GRADE.
- 3 LATERAL LINE.
- 4 MAIN LINE.
- 5 LOW VOLTAGE CONTROL WIRE. TAPE AND BUNDLE TUBING OR WIRING AT 10 FT. INTERVALS. WIRING SHALL BE LAID OUT LOOSELY IN THE TRENCH.
- 6 2" DETECTABLE WARNING TAPE OVER MAIN LINE - 3" [75mm] ABOVE PIPE. USE CHRISTY MODEL #TA-DT-2-BIRR FOR POTABLE IRRIGATION SYSTEMS OR #TA-DT-2-PIRR FOR RECYCLED IRRIGATION WATER SYSTEMS
- 7 TYPICAL DISTANCE BETWEEN PIPES.

4 TRENCHING
 SCALE: NONE

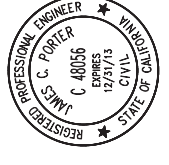
NOTES:
 1. ALL MAIN SUPPLY LINES AND LATERAL LINES SHALL BE PLACED IN SLEEVES UNDER PAVED SURFACES. INSTALL LOW VOLTAGE WIRES WITHIN A SEPARATE CONDUIT UNDER PAVED SURFACES. DO NOT TAPE WIRES WITHIN CONDUIT.



5 RAIN MASTER EAGLE FLOW SENSOR & MASTER VALVE INSTALLATION
 SCALE: NONE

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 R. C. E. # 48056 / EXPIRES 12-31-2013

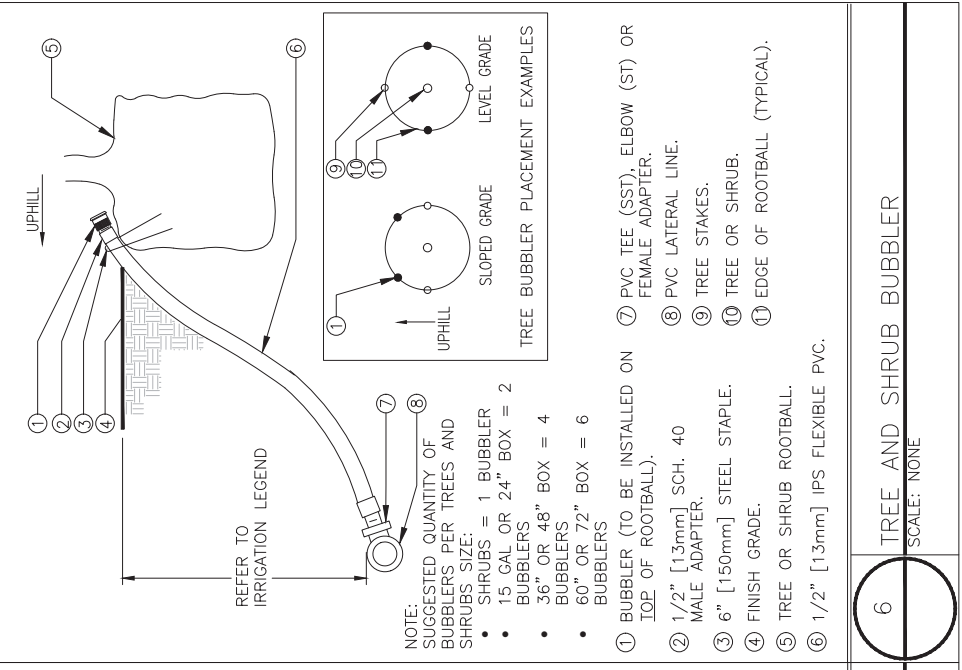
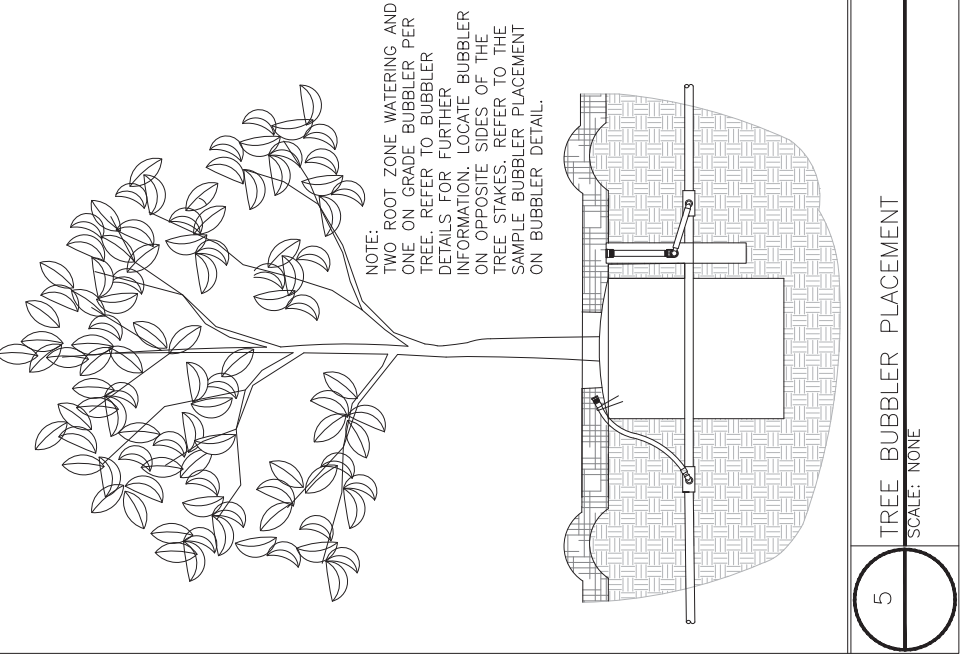
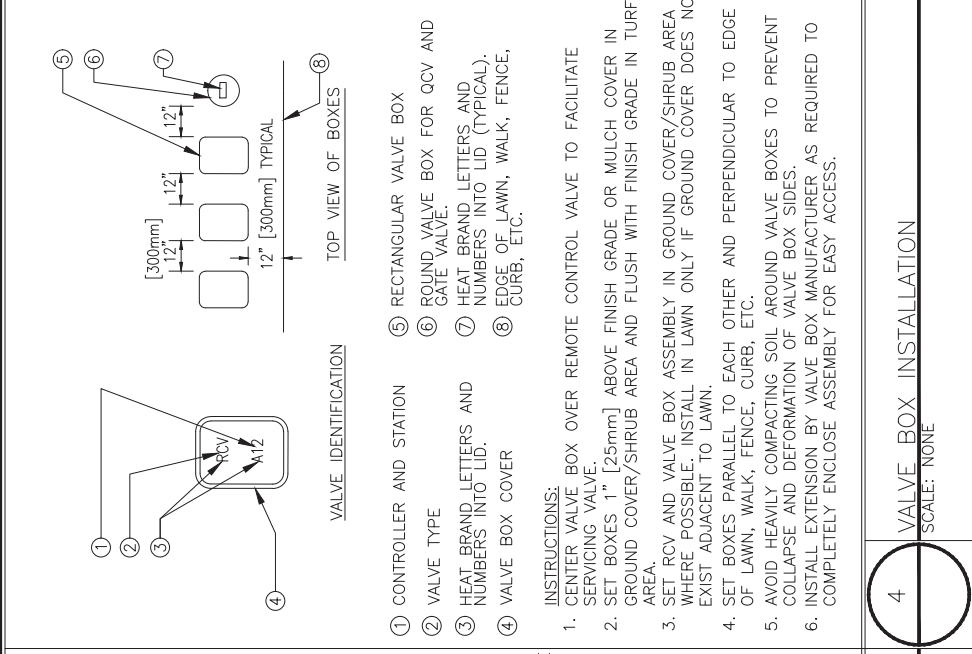
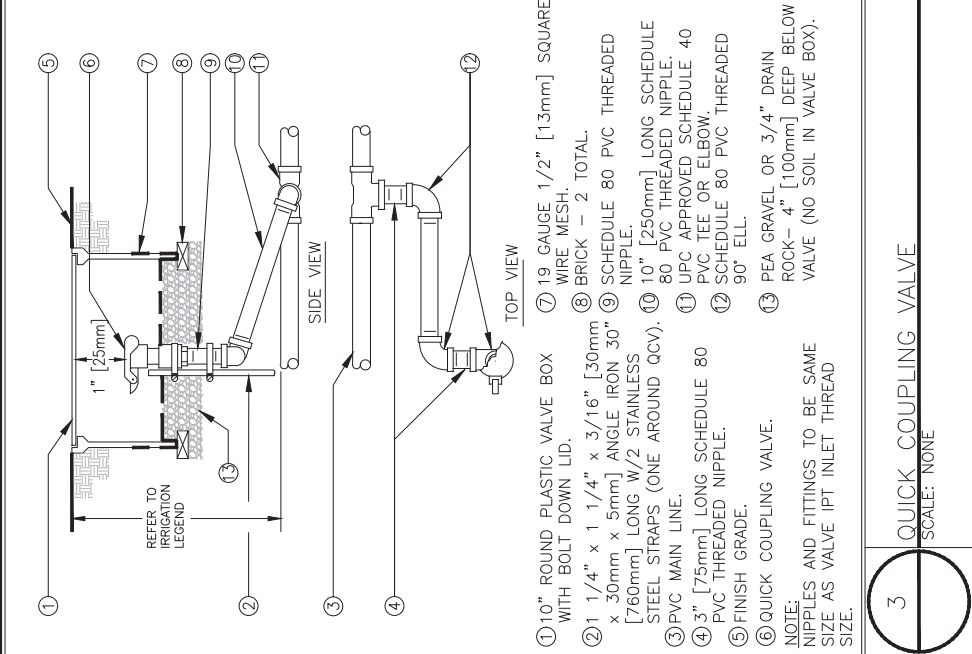
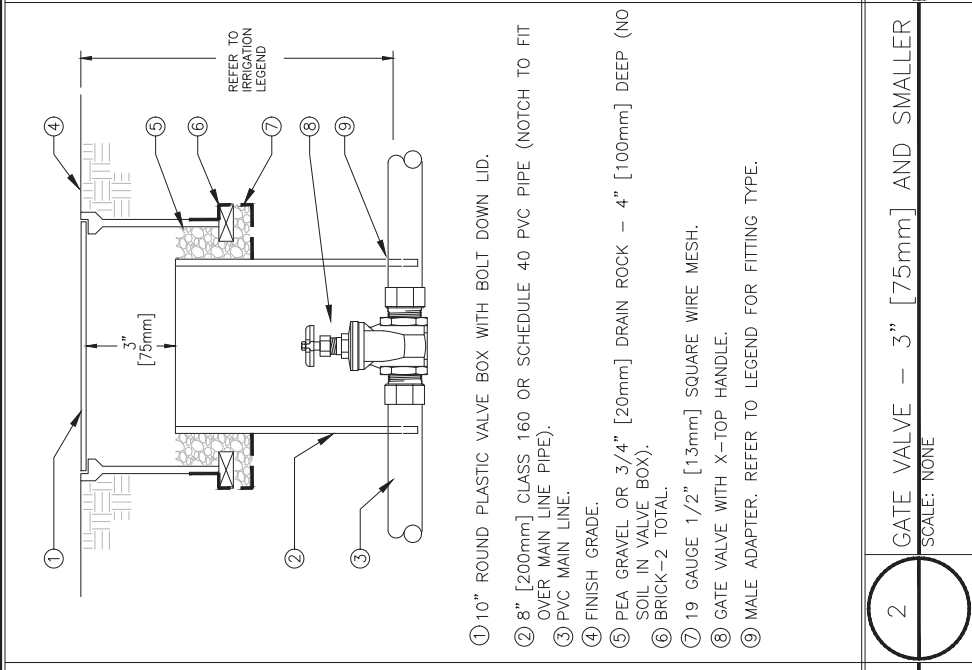
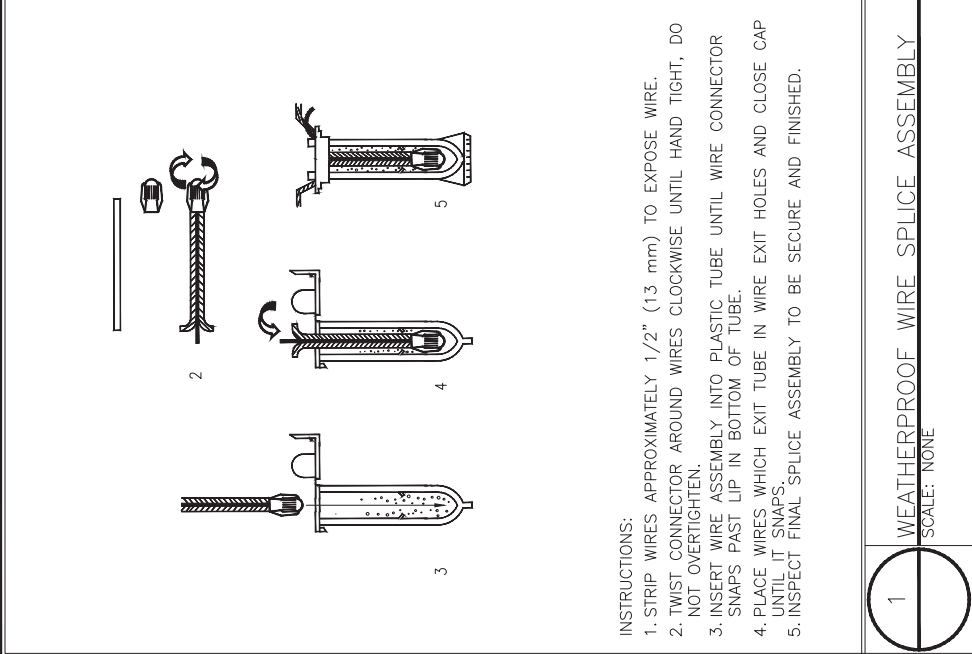
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DESIGNED BY: JD	COUNTY OF SAN MATEO	SCALE:
CHECKED BY: JD	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04/06/2018
DRAWN BY: IS	IRRIGATION DETAILS	FILE NO.:
REVISION	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR
DATE	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS
 ORIGINAL SCALE: 1/8" = 1'-0"

0 1 2 3 4

L-16
 SHEET X OF X



FILENAME: \\NASR\COMP\PLAN\YAD17A201717252 MIDDLEFIELD ROAD-COUNTY\CAD\2-18L-16-L-19 IRRIGATION DETAILS.DWG (L-17)

APPROVED: _____ DATE: _____

REGISTERED PROFESSIONAL ENGINEER
JAMES C. PORTER
C 48056
EXPIRES 12/31/13
STATE OF CALIFORNIA

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2013

90% CD - NOT FOR CONSTRUCTION

COUNTY OF SAN MATEO
MIDDLEFIELD ROAD IMPROVEMENT PROJECT
IRRIGATION DETAILS

DESIGNED BY: JD
CHECKED BY: JD
DRAWN BY: JS

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY

555 COUNTY CENTER, 5th FLOOR
REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS
ORIGINAL SCALE: 6" = 1'-0"

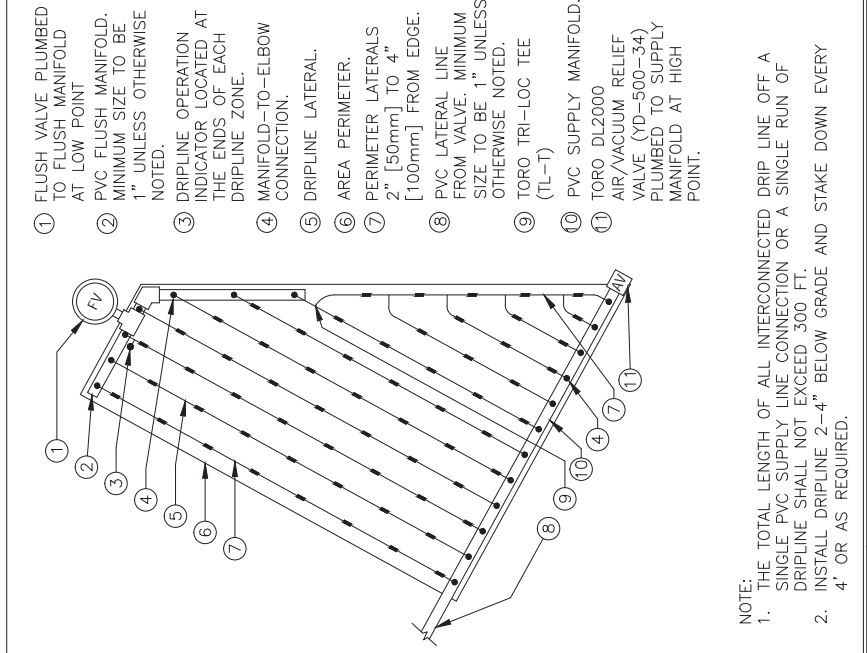
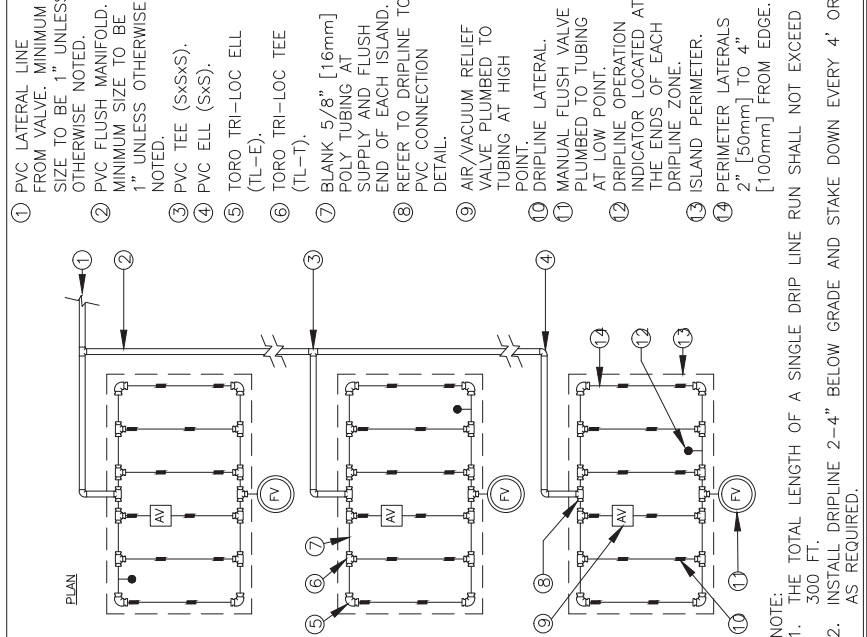
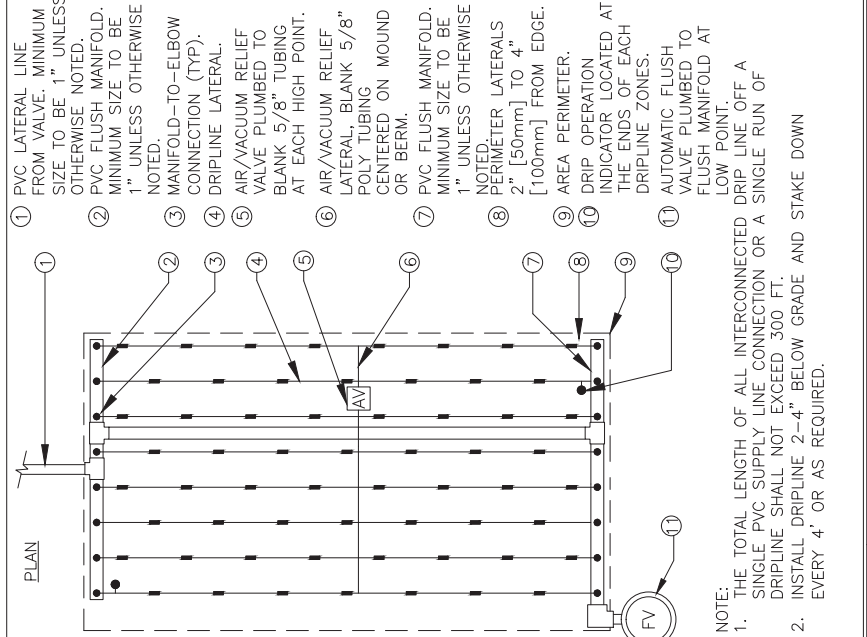
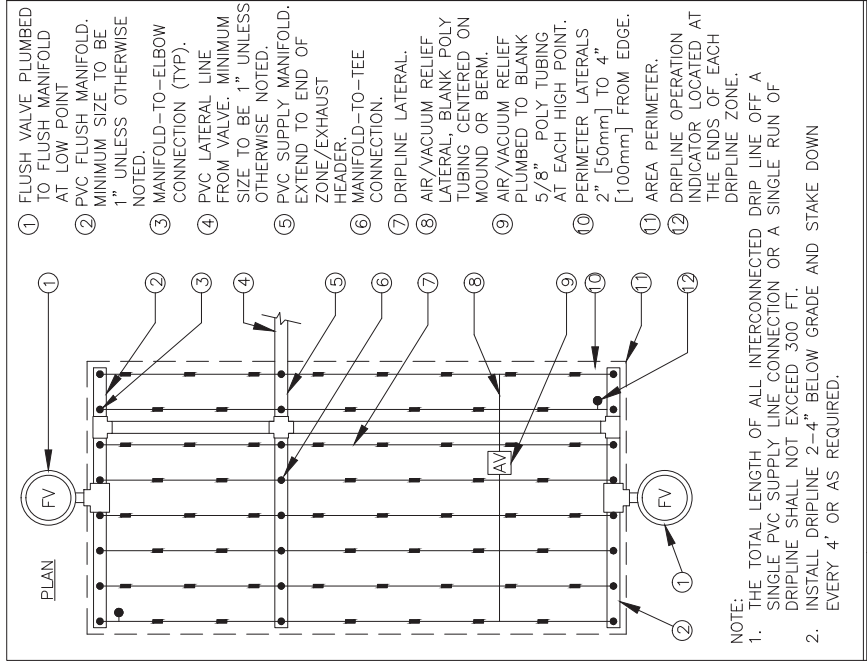
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1 FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT
 2 PVC FLUSH MANIFOLD. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 3 MANIFOLD-TO-ELBOW CONNECTION (TYP).
 4 PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 5 PVC SUPPLY MANIFOLD. EXTEND TO END OF ZONE/EXHAUST HEADER.
 6 MANIFOLD-TO-TEE CONNECTION.
 7 DRIPLINE LATERAL.
 8 AIR/VACUUM RELIEF LATERAL, BLANK POLY TUBING CENTERED ON MOUND OR BERM.
 9 AIR/VACUUM RELIEF PLUMBED TO BLANK 5/8" POLY TUBING AT EACH HIGH POINT.
 10 PERIMETER LATERALS [100mm] FROM EDGE.
 11 AREA PERIMETER. DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.
 12 TORO DL2000 AIR/VACUUM RELIEF VALVE (YD-500-34) PLUMBED TO SUPPLY MANIFOLD AT HIGH POINT.

NOTE:
 1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
 2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

1 PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 2 PVC FLUSH MANIFOLD. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 3 MANIFOLD-TO-ELBOW CONNECTION (TYP).
 4 DRIPLINE LATERAL.
 5 AIR/VACUUM RELIEF VALVE PLUMBED TO BLANK 5/8" TUBING AT EACH HIGH POINT.
 6 AIR/VACUUM RELIEF LATERAL, BLANK 5/8" POLY TUBING CENTERED ON MOUND OR BERM.
 7 PVC FLUSH MANIFOLD. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 8 PERIMETER LATERALS [100mm] FROM EDGE.
 9 AREA PERIMETER. DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.
 10 AUTOMATIC FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT.
 11 TORO DL2000 AIR/VACUUM RELIEF VALVE (YD-500-34) PLUMBED TO SUPPLY MANIFOLD AT HIGH POINT.

NOTE:
 1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
 2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

1 PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 2 PVC FLUSH MANIFOLD. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 3 PVC TEE (SxSxS).
 4 PVC ELL (SxS).
 5 TORO TRI-LOC ELL (TL-E).
 6 TORO TRI-LOC TEE (TL-T).
 7 BLANK 5/8" [16mm] POLY TUBING AT SUPPLY AND FLUSH END OF EACH ISLAND. REFER TO DRIPLINE TO DETAIL.
 8 PVC CONNECTION DETAIL.
 9 AIR/VACUUM RELIEF VALVE PLUMBED TO TUBING AT HIGH POINT.
 10 DRIPLINE LATERAL.
 11 MANUAL FLUSH VALVE PLUMBED TO TUBING AT LOW POINT.
 12 DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.
 13 ISLAND PERIMETER.
 14 PERIMETER LATERALS [100mm] FROM EDGE.

NOTE:
 1. THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 300 FT.
 2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

1 FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT
 2 PVC FLUSH MANIFOLD. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 3 DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.
 4 MANIFOLD-TO-ELBOW CONNECTION.
 5 DRIPLINE LATERAL.
 6 AREA PERIMETER.
 7 PERIMETER LATERALS [50mm] TO 4" [100mm] FROM EDGE.
 8 PVC LATERAL LINE FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 9 TORO TRI-LOC TEE (TL-T)
 10 PVC SUPPLY MANIFOLD.
 11 TORO DL2000 AIR/VACUUM RELIEF VALVE (YD-500-34) PLUMBED TO SUPPLY MANIFOLD AT HIGH POINT.

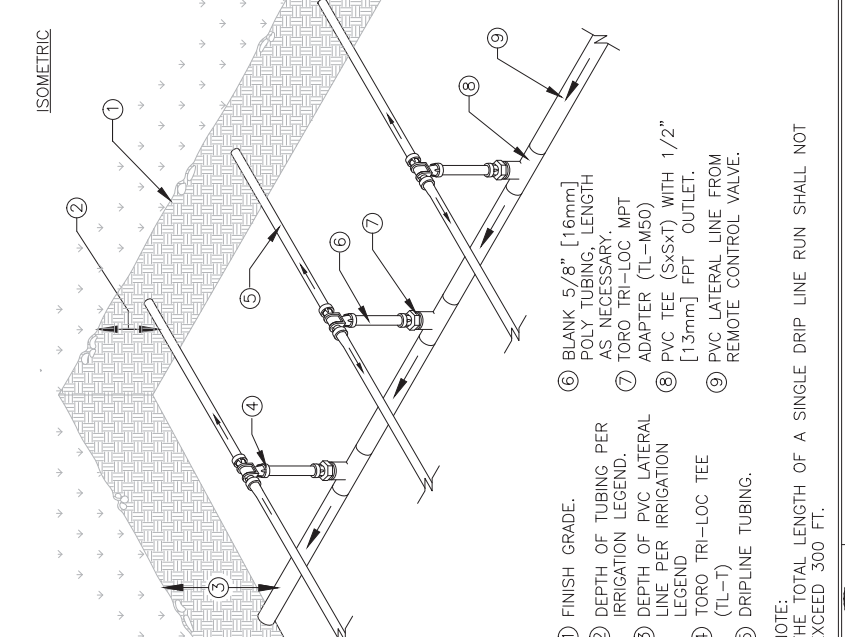
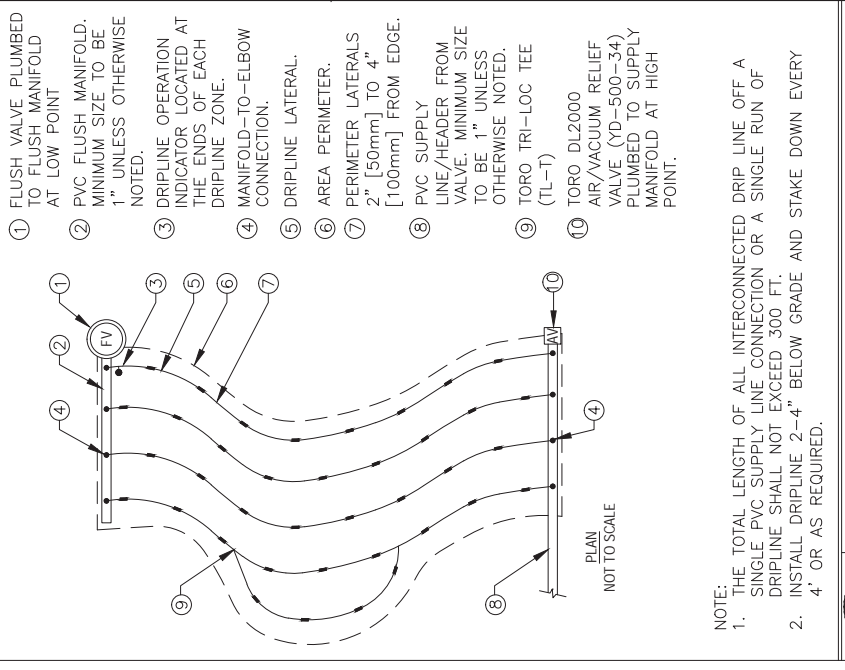
NOTE:
 1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
 2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

1 TORO DL 2000 CENTER FEED LAYOUT
 SCALE: NONE

2 TORO DL 2000 END FEED LAYOUT
 SCALE: NONE

3 TORO DL 2000 ISLAND LAYOUT
 SCALE: NONE

4 TORO DL2000 TRIANGULAR LAYOUT
 SCALE: NONE



1 FLUSH VALVE PLUMBED TO FLUSH MANIFOLD AT LOW POINT
 2 PVC FLUSH MANIFOLD. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 3 DRIPLINE OPERATION INDICATOR LOCATED AT THE ENDS OF EACH DRIPLINE ZONE.
 4 MANIFOLD-TO-ELBOW CONNECTION.
 5 DRIPLINE LATERAL.
 6 AREA PERIMETER.
 7 PERIMETER LATERALS 2" [50mm] TO 4" [100mm] FROM EDGE.
 8 PVC SUPPLY LINE/HEADER FROM VALVE. MINIMUM SIZE TO BE 1" UNLESS OTHERWISE NOTED.
 9 TORO TRI-LOC TEE (TL-T)
 10 TORO DL2000 AIR/VACUUM RELIEF VALVE (YD-500-34) PLUMBED TO SUPPLY MANIFOLD AT HIGH POINT.

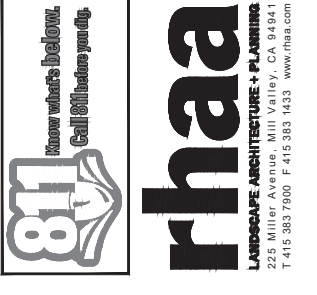
NOTE:
 1. THE TOTAL LENGTH OF ALL INTERCONNECTED DRIP LINE OFF A SINGLE PVC SUPPLY LINE CONNECTION OR A SINGLE RUN OF DRIPLINE SHALL NOT EXCEED 300 FT.
 2. INSTALL DRIPLINE 2-4" BELOW GRADE AND STAKE DOWN EVERY 4' OR AS REQUIRED.

1 FINISH GRADE.
 2 DEPTH OF TUBING PER IRRIGATION LEGEND.
 3 DEPTH OF PVC LATERAL LINE PER IRRIGATION LEGEND.
 4 TORO TRI-LOC TEE (TL-T)
 5 DRIPLINE TUBING.
 6 BLANK 5/8" [16mm] POLY TUBING, LENGTH AS NECESSARY.
 7 TORO TRI-LOC MPT ADAPTER (TL-M50)
 8 PVC TEE (SxSxT) WITH 1/2" [13mm] FPT OUTLET.
 9 PVC LATERAL LINE FROM REMOTE CONTROL VALVE.

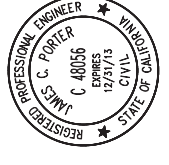
NOTE:
 THE TOTAL LENGTH OF A SINGLE DRIP LINE RUN SHALL NOT EXCEED 300 FT.

5 TORO DL2000 ODD CURVE LAYOUT
 SCALE: NONE

6 TORO DL 2000 CENTER FEED MANIFOLD
 SCALE: NONE



DESIGNED BY: JD	CHECKED BY: JS	DATE: 04/06/2018
DRAWN BY: ID	FILE NO.:	
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	IRRIIGATION DETAILS	
DATE	585 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
REVISION		
FOR REDUCED PLANS ORIGINAL SCALE: 1/8" = 1'-0"	0 1 2 3 4	L-18 SHEET X OF X



APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2013

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COUNTY OF SAN MATEO
 MIDDLEFIELD ROAD IMPROVEMENT PROJECT

SCALE: _____
 DATE: 04/06/2018

FILE NO.:

585 COUNTY CENTER, 5th FLOOR
 REDWOOD CITY, CALIFORNIA 94063

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 SAN MATEO COUNTY

DATE

REVISION

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L-18
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 SAN MATEO COUNTY

DATE

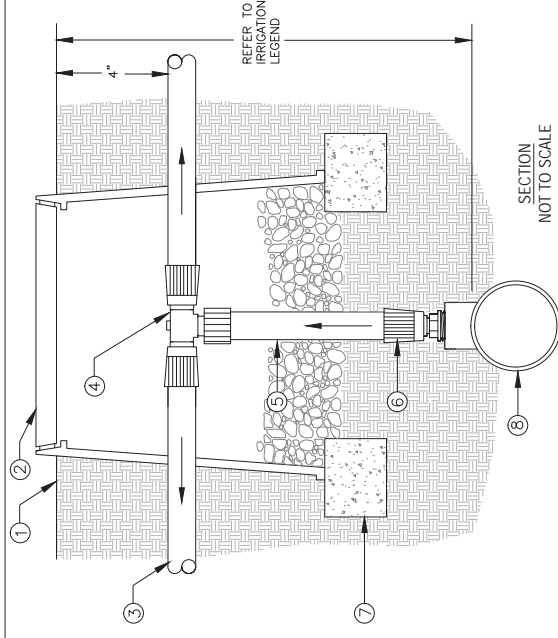
REVISION

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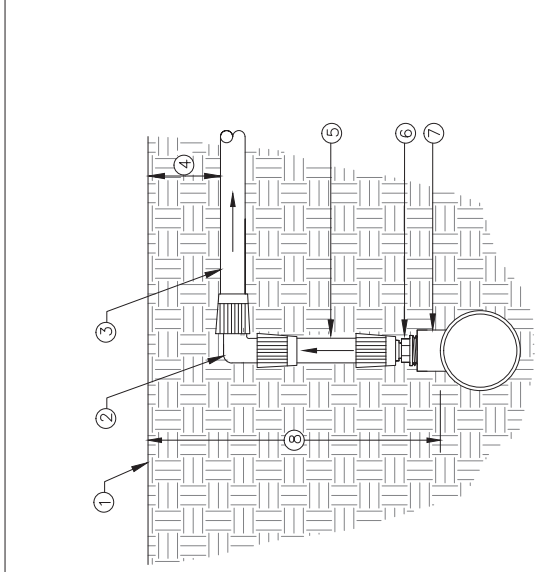
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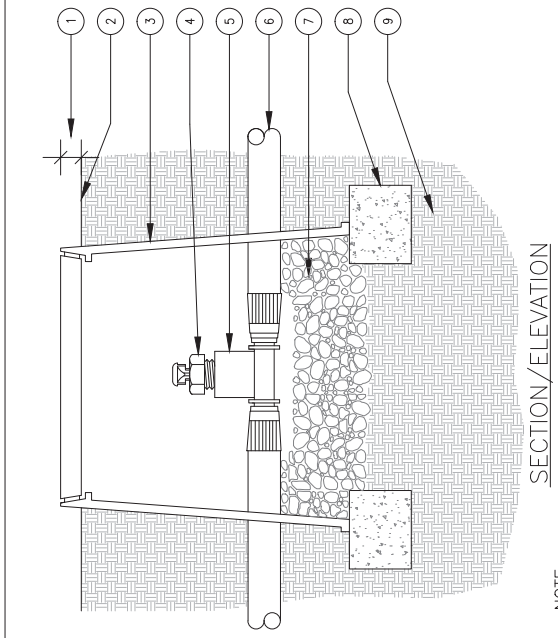
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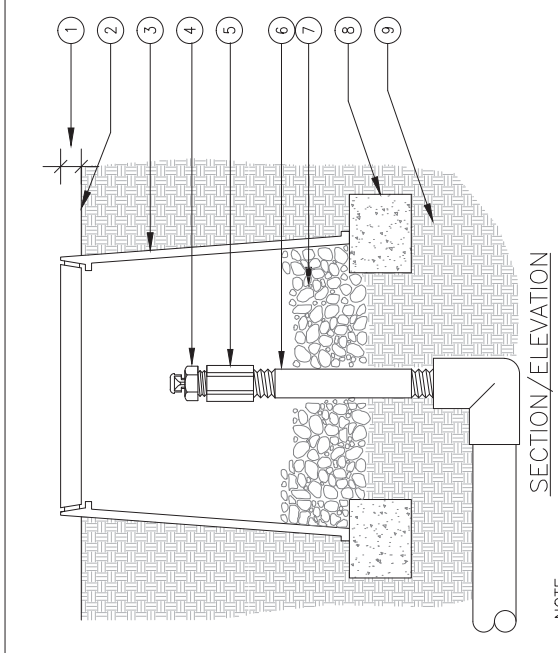
- SECTION NOT TO SCALE
- 1 FINISH GRADE
 - 2 CARSON 708 OR EQUAL COLOR: BLACK. USE PURPLE FOR RECYCLED WATER SYSTEMS.
 - 3 DRIPLINE TUBING
 - 4 TORO TRI-LOC TEE
 - 5 BLANK 5/8" [16mm] POLY TUBING. LENGTH AS NECESSARY.
 - 6 TORO TRI-LOC MPT ADAPTER (TL-M50)
 - 7 BRICK (1 OF 2)
 - 8 SCH 40 PVC TEE (SxSxT) WITH 1/2" FPT OUTLET.
 - 9 PVC LATERAL LINE SUPPLY. MINIMUM SIZE TO BE 1" UNLESS SIZED DIFFERENTLY ON DRAWINGS. USE SCH 40 PVC 1"x1"x1/2" TEE OR 90° ELBOW.



- SECTION/ELEVATION NOT TO SCALE
- 1 FINISH GRADE
 - 2 TORO TRI-LOC ELBOW (TL-E)
 - 3 DRIPLINE TUBING
 - 4 DEPTH OF TUBING PER IRRIGATION LEGEND.
 - 5 BLANK 5/8" [16mm] POLY TUBING. LENGTH AS NECESSARY.
 - 6 TORO TRI-LOC MPT ADAPTER (TL-M50)
 - 7 SCH 40 PVC TEE (SxSxT) WITH 1/2" FPT OUTLET.
 - 8 DEPTH OF PVC LATERAL LINE PER IRRIGATION LEGEND.



- SECTION/ELEVATION
- NOTE: USE ONE AIR/RELIEF VALVE FOR EVERY 7 GPM PER ZONE. LOCATE AT HIGH POINTS.
- 1 1" ABOVE FINISH GRADE.
 - 2 FINISH GRADE.
 - 3 6" ROUND PLASTIC VALVE BOX. HEAT BRAND "AR" ON LID IN 1" HIGH CHARACTERS.
 - 4 TORO DL2000 AIR/VACUUM RELIEF VALVE (YD-500-34).
 - 5 TORO TRI-LOC TEE X 1/2" FPT ADAPTER (TL-T-F50)
 - 6 TORO DL2000 TUBING/AIR-RELIEF LATERAL.
 - 7 PEA GRAVEL (4" DEEP).
 - 8 BRICK SUPPORTS (2 COMMON BRICKS REQUIRED).
 - 9 NATIVE SOIL PER SPECIFICATIONS.



- SECTION/ELEVATION
- NOTE: USE ONE AIR/RELIEF VALVE FOR EVERY 7 GPM PER ZONE. LOCATE AT HIGH POINTS.
- 1 1" ABOVE FINISH GRADE.
 - 2 FINISH GRADE.
 - 3 6" ROUND PLASTIC VALVE BOX. HEAT BRAND "AR" ON LID IN 1" HIGH CHARACTERS.
 - 4 TORO DL2000 AIR/VACUUM RELIEF VALVE (YD-500-34).
 - 5 1/2" SCH 40 PVC COUPLING (TxF)
 - 6 1/2" SCH 80 PVC NIPPLE (LENGTH AS REQUIRED).
 - 7 PEA GRAVEL (4" DEEP).
 - 8 BRICK SUPPORTS (2 COMMON BRICKS REQUIRED).
 - 9 NATIVE SOIL PER SPECIFICATIONS.



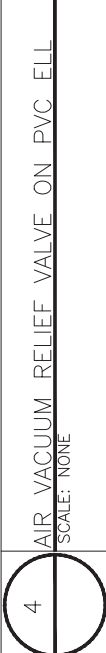
- 1 DRIPLINE TO PVC CONNECTION-SMALL PLANTERS
SCALE: NONE



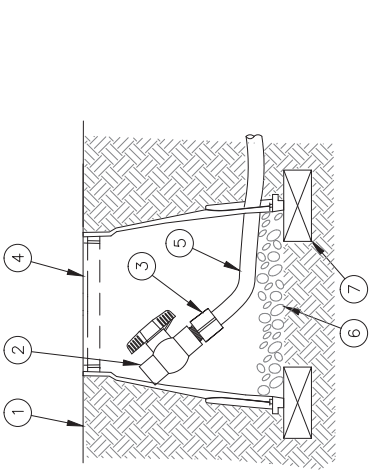
- 2 DRIPLINE MANIFOLD TO ELBOW CONNECTION
SCALE: NONE



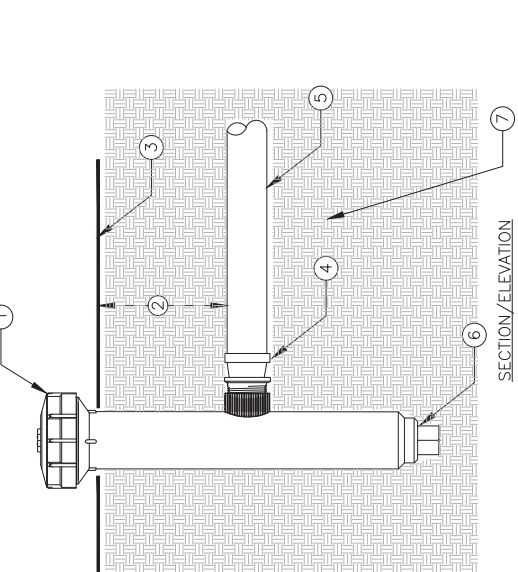
- 3 AIR VACUUM RELIEF VALVE IN DRIPLINE
SCALE: NONE



- 4 AIR VACUUM RELIEF VALVE ON PVC ELL
SCALE: NONE



- NOTE: ALLOW A MINIMUM OF PVC HOSE IN VALVE BOX IN ORDER TO DIRECT FLUSHED WATER OUTSIDE VALVE BOX.
- 1 FINISH GRADE
 - 2 1/2" SCH 40 THREADED BALL VALVE.
 - 3 1/2" SCH 40 MALE ADAPTER.
 - 4 6" ROUND PLASTIC VALVE BOX.
 - 5 1" IPS PVC HOSE FROM EXHAUST HEADER OR BLANK DRIP TUBING.
 - 6 PEA GRAVEL SUMP (6" DEEP).
 - 7 BRICK (1 OF 2)



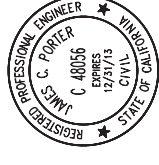
- SECTION/ELEVATION
- 1 TORO 6" POP UP SPRINKLER WITH SIDE INLET (MODEL 570Z-6P-S)-PRX WITH 5" PRECISION NOZZLE (MODEL O-T-5-OP) TURNED COMPLETELY OFF WITH ADJUSTMENT SCREW. SPRINKLER SHALL OPERATE AS THE DRIPLINE INDICATOR. USE A MINIMUM OF ONE PER ZONE AND LOCATED AT END OF ZONE.
 - 2 DEPTH OF DRIPLINE. REFER TO IRRIGATION LEGEND.
 - 3 FINISH GRADE.
 - 4 TORO TRI-LOC X 1/2" MPT ADAPTER (TL-M50)
 - 5 DRIPLINE.
 - 6 KEEP PLUG IN SPRINKLER. ONLY USE SIDE INLET.
 - 7 SOIL BACKFILL.



- 5 DRIPLINE-FLUSH POINT
SCALE: NONE



- 6 DRIPLINE OPERATION INDICATOR
SCALE: NONE



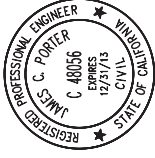
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DATE: _____

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
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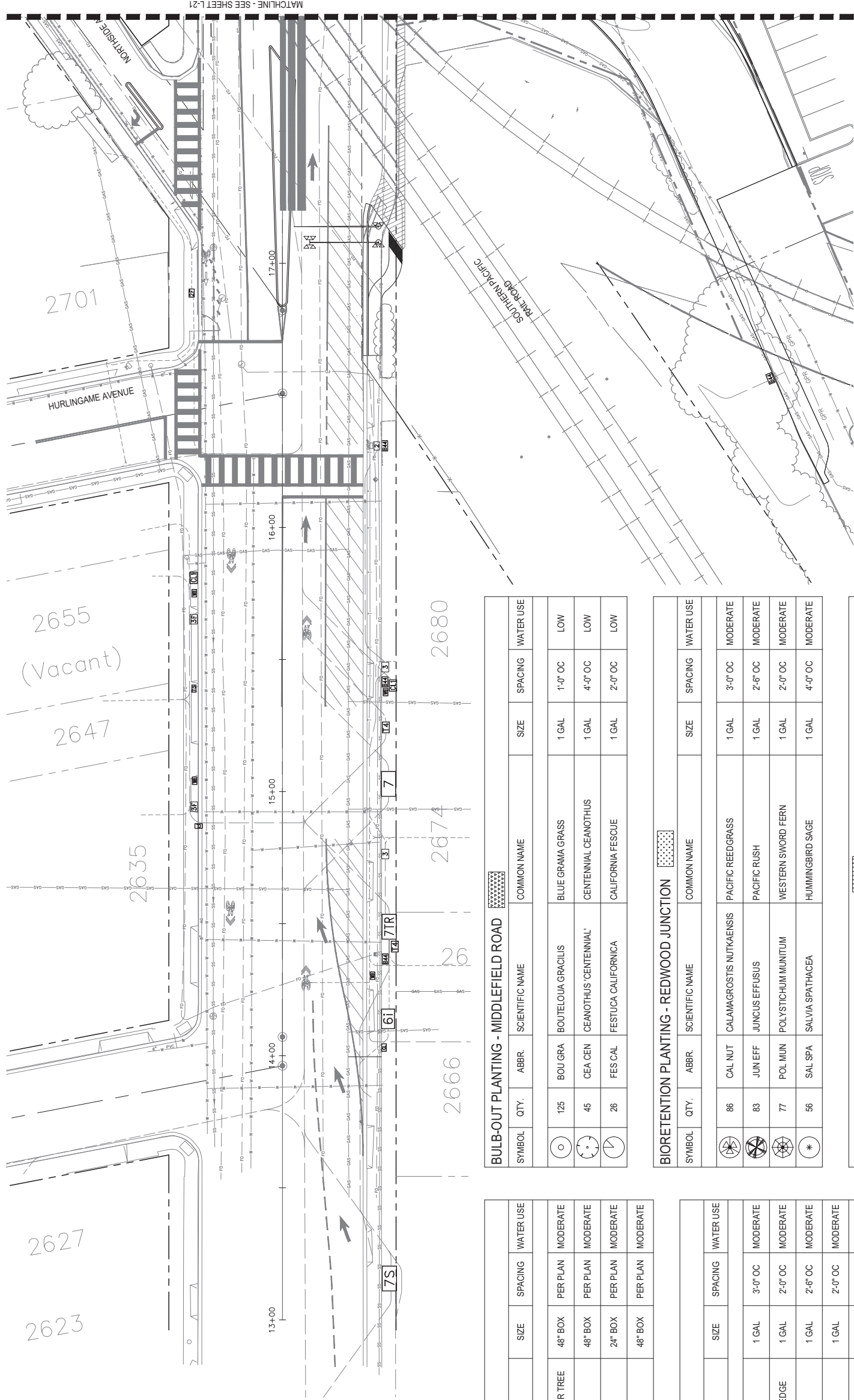
DESIGNED BY: JD	COUNTY OF SAN MATEO	SCALE:
CHECKED BY: JD	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE: 04/06/2018
DRAWN BY: JS	IRRIGATION DETAILS	FILE NO.:
DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR
REVISION	SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94083
FOR REDUCED PLANS ORIGINAL SCALE: 1/8"=1'-0"	0 1 2 3 4	L-19
		SHEET X OF X

APPROVED:



DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. #48056 / EXPIRES 12-31-2013



PLANTING NOTES

- REFER TO SPECIFICATIONS FOR SOIL PREPARATION, PLANTING, AND MAINTENANCE PERIOD REQUIREMENTS.
- CONTRACTOR TO REFER TO PLANT LIST FOR PLANT SIZE AND SPACING. USE TRIANGULAR SPACING UNLESS OTHERWISE NOTED.
- PLANT QUANTITIES ARE PROVIDED FOR CONTRACTOR'S CONVENIENCE ONLY. CONTRACTOR TO VERIFY ALL PLANT QUANTITIES SHOWN IN PLANTING PLANS.
- CONTRACTOR TO SUBMIT PLANT SAMPLES FOR APPROVAL BY LANDSCAPE ARCHITECT. SEE SPECS.
- LANDSCAPE ARCHITECT TO INSPECT PLANTING LAYOUT PRIOR TO INSTALLATION. CONTRACTOR TO PROVIDE 10' X 10' MOCKUP OF ALL PLANT MIXES FOR APPROVAL BY LANDSCAPE ARCHITECT.
- CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES, STRUCTURES, AND IRRIGATION LINES BEFORE DIGGING.
- GROUNDCOVERS ARE TO EXTEND UNDER TREE AND SHRUB PLANTINGS FOR FULL COVERAGE. SPACE GROUNDCOVER 18' AWAY FROM TREES AND 12' AWAY FROM SHRUBS.
- SEE GRADING PLAN FOR FINISH GRADES. ALL FINISH GRADES REFER TO FINISH GRADE OF MULCHED LANDSCAPE.
- ALL PLANTING AREAS, PLANTERS, AND POTS TO RECEIVE 3" OF MULCH. SEE SPECS.

PLANTING SCHEDULE

SYMBOL	QTY.	ABBR.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	WATER USE
	24	GIN BIL	GINKGO BILOBA	'AUTUMN GOLD'	AUTUMN GOLD MAIDENHAIR TREE	48" BOX	MODERATE
	21	ACE RUB	ACER RUBRUM	'FRANK JR.'	REDPOINTE RED MAPLE	48" BOX	MODERATE
	5	ACE RUB	ACER RUBRUM	'FRANK JR.'	REDPOINTE RED MAPLE	24" BOX	MODERATE
	16	LOP CON	LOPHOSTEMON CONFERTUS	BRISBANE BOX	BRISBANE BOX	48" BOX	MODERATE

BIORETENTION PLANTING - MIDDLEFIELD ROAD

SYMBOL	QTY.	ABBR.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	WATER USE
	103	CAL NUT	CALAMAGROSTIS NUTKAENSIS	PACIFIC REEDGRASS	1 GAL	3'-0" OC	MODERATE
	74	CAR TES	CAREX TESTACEA	ORANGE NEW ZEALAND SEDGE	1 GAL	2'-0" OC	MODERATE
	36	JUN EFF	JUNCUS EFFUSUS	PACIFIC RUSH	1 GAL	2'-6" OC	MODERATE
	64	JUN PAT	JUNCUS PATENS	CALIFORNIA GREY RUSH	1 GAL	2'-0" OC	MODERATE
	97	MIM GUT	MIMULUS GUTTATUS	CREEK MONKEYFLOWER	1 GAL	1'-6" OC	MODERATE
	99	POL MUN	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL	2'-0" OC	MODERATE
	22	SAL SPA	SALVIA SPATHACEA	HUMMINGBIRD SAGE	1 GAL	4'-0" OC	MODERATE

BULB-OUT PLANTING - MIDDLEFIELD ROAD

SYMBOL	QTY.	ABBR.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	WATER USE
	125	BOU GRA	BOUTELOUA GRACILIS	BLUE GRAMA GRASS	1 GAL	1'-0" OC	LOW
	45	CEA CEN	CENTAUREA CENTENNIALIS	CENTENNIAL CEANOOTHUS	1 GAL	4'-0" OC	LOW
	26	FES CAL	FESTUCA CALIFORNICA	CALIFORNIA FESCUE	1 GAL	2'-0" OC	LOW

BIORETENTION PLANTING - REDWOOD JUNCTION

SYMBOL	QTY.	ABBR.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	WATER USE
	86	CAL NUT	CALAMAGROSTIS NUTKAENSIS	PACIFIC REEDGRASS	1 GAL	3'-0" OC	MODERATE
	83	JUN EFF	JUNCUS EFFUSUS	PACIFIC RUSH	1 GAL	2'-6" OC	MODERATE
	77	POL MUN	POLYSTICHUM MUNITUM	WESTERN SWORD FERN	1 GAL	2'-0" OC	MODERATE
	56	SAL SPA	SALVIA SPATHACEA	HUMMINGBIRD SAGE	1 GAL	4'-0" OC	MODERATE

WALKWAY PLANTING - REDWOOD JUNCTION

SYMBOL	QTY.	ABBR.	SCIENTIFIC NAME	COMMON NAME	SIZE	SPACING	WATER USE
	21	CEA CEN	CENTAUREA CENTENNIALIS	CENTENNIAL CEANOOTHUS	1 GAL	4'-0" OC	LOW

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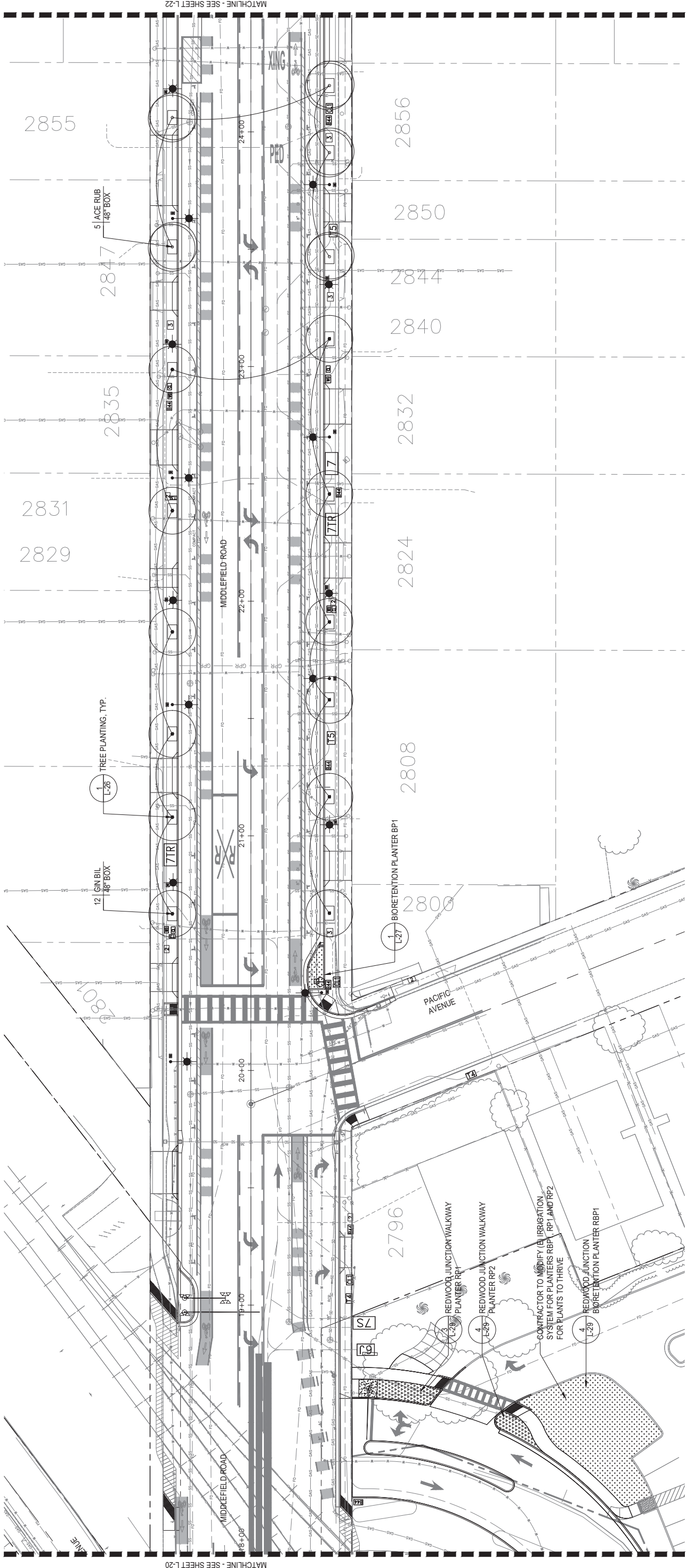
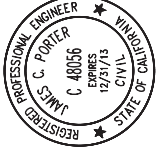


DESIGNED BY:	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
CHECKED BY:	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
DRAWN BY:	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
DATE:	
REVISION	
SCALE:	COUNTY OF SAN MATEO MIDDLEFIELD ROAD IMPROVEMENT PROJECT PLANTING SCHEDULE & PLAN - 1
FILE NO.:	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063
SHEET	X OF X

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. #48056 / EXPIRES 12-31-2013



MATCHLINE - SEE SHEET L-20

MATCHLINE - SEE SHEET L-22

FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETScape IMPROVEMENTS 15033\CAD\CDD\RHAA\PL\OTL-21-PLANTING PLAN - 2.DWG (L1-21-PLANTING PLAN - 2)

SHEET NOTES

- 1. SEE PLANTING SCHEDULE ON SHEET PLANTING SCHEDULE & PLAN - 1.



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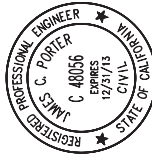
DESIGNED BY:		COUNTY OF SAN MATEO	
CHECKED BY: JI		MIDDLEFIELD ROAD IMPROVEMENT PROJECT	
DRAWN BY: LY		PLANTING PLAN - 2	
REVISION	DATE	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
		SAN MATEO COUNTY	
		JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	
		DATE	
		FILE NO. : 04/06/2018	
		SCALE: 90% CD - NOT FOR CONSTRUCTION	
		DATE: 04/06/2018	
		FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES	
		0 1 2 3 4	
		L-21	
		SHEET X OF X	



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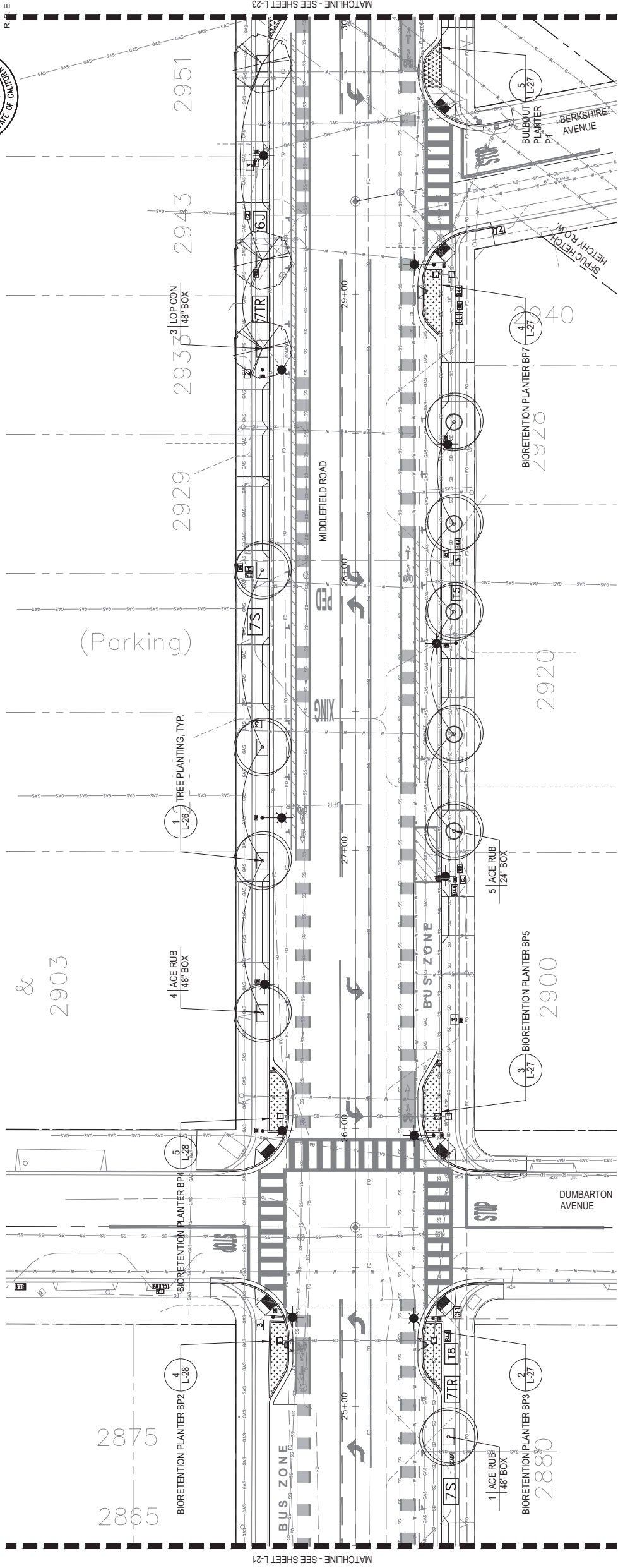
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SHEET NOTES

- 1. SEE PLANTING SCHEDULE ON SHEET PLANTING SCHEDULE & PLAN - 1.



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DESIGNED BY:		COUNTY OF SAN MATEO	
CHECKED BY: JI		MIDDLEFIELD ROAD IMPROVEMENT PROJECT	
DRAWN BY: LY		PLANTING PLAN - 3	
REVISION	DATE	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
		SAN MATEO COUNTY	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		SHEET X OF X	

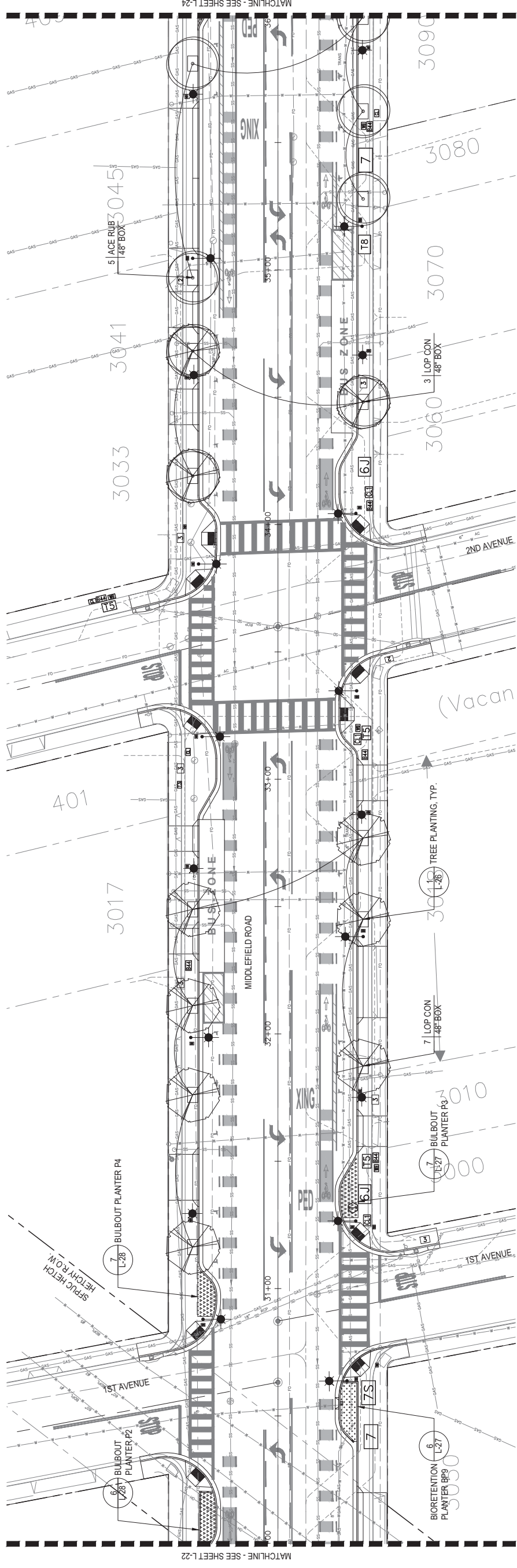
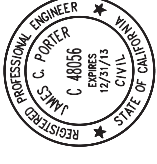


FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETScape IMPROVEMENTS 15033\CAD\CDD\RHAA\PL\TTL-22-PLANTING PLAN - 3.DWG (L-22-PLANTING PLAN - 3)

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DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
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SHEET NOTES

- 1. SEE PLANTING SCHEDULE ON SHEET PLANTING SCHEDULE & PLAN - 1.



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DESIGNED BY:		COUNTY OF SAN MATEO	
CHECKED BY: JI		MIDDLEFIELD ROAD IMPROVEMENT PROJECT	
DRAWN BY: LY		PLANTING PLAN - 4	
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
0 1 2 3 4		L-23	
		SHEET X OF X	



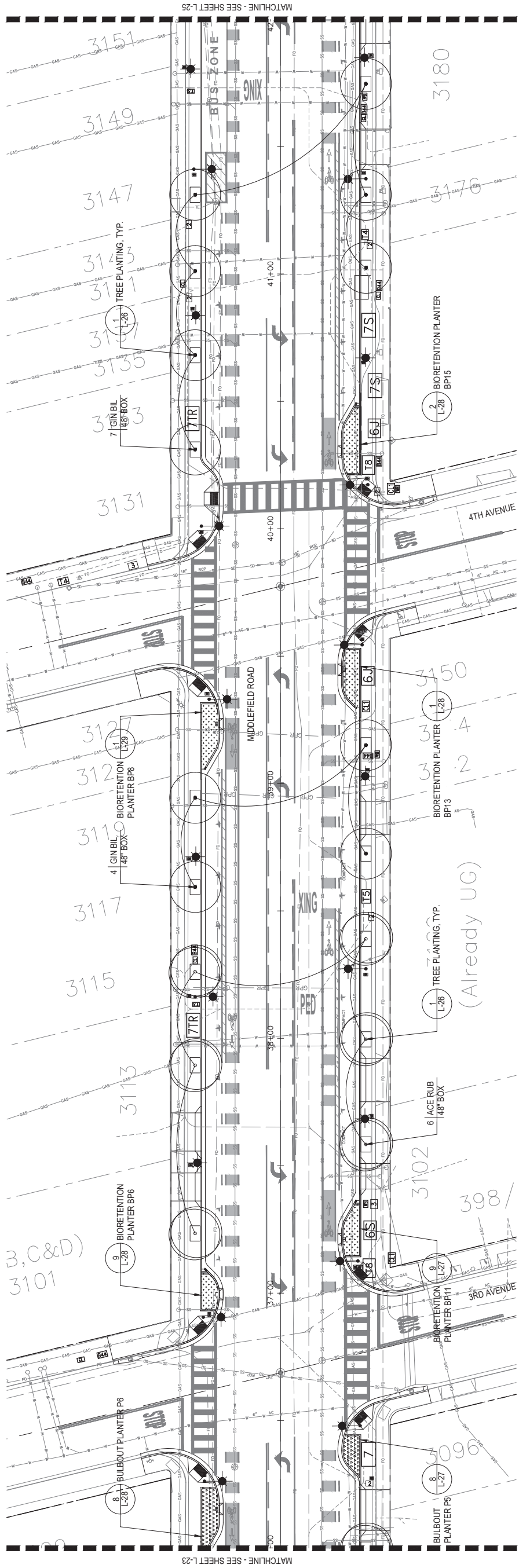
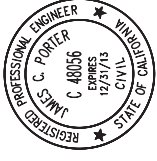
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SHEET NOTES

- 1. SEE PLANTING SCHEDULE ON SHEET PLANTING SCHEDULE & PLAN - 1.



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DESIGNED BY:		COUNTY OF SAN MATEO	
CHECKED BY: JI		MIDDLEFIELD ROAD IMPROVEMENT PROJECT	
DRAWN BY: LY		PLANTING PLAN - 5	
REVISION	DATE	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		SAN MATEO COUNTY JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	
0	1	2	3
L-24		SHEET X OF X	



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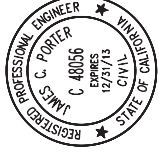


FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETScape IMPROVEMENTS 1503\3\CAD\CAD\DRHAM\PL\TTL-24-PLANTING PLAN - 5.DWG (L-24 PLANTING PLAN - 5)

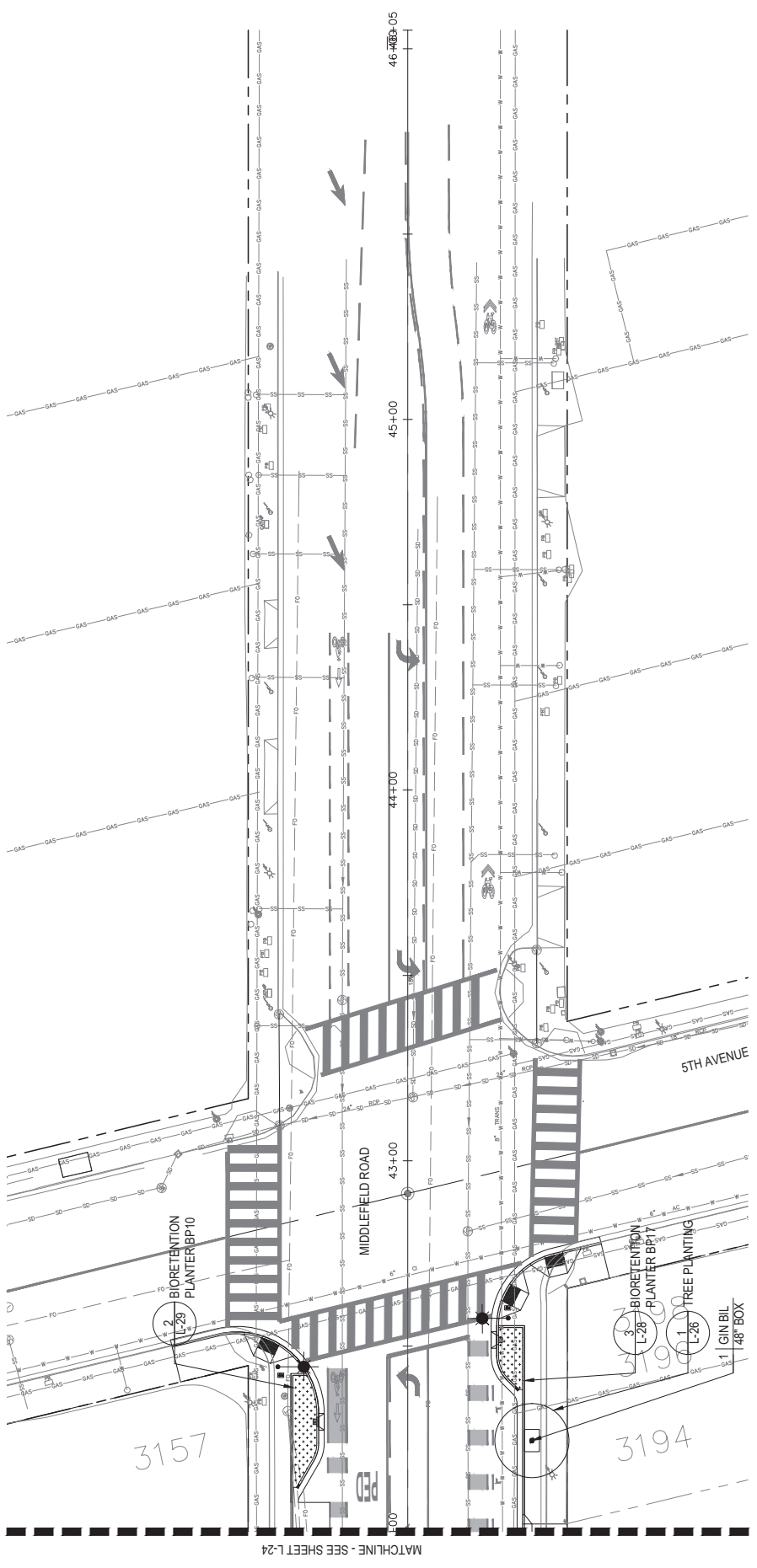
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FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETScape IMPROVEMENTS 15033\ACAD\CAD\DRH\A\PL\01-L-25-PLANTING PLAN - 6.DWG (L-25-PLANTING PLAN - 6)



SHEET NOTES

- 1. SEE PLANTING SCHEDULE ON SHEET PLANTING SCHEDULE & PLAN - 1.



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DESIGNED BY:	COUNTY OF SAN MATEO	SCALE:	
CHECKED BY:	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE:	04/06/2018
DRAWN BY:	PLANTING PLAN - 6	FILE NO.:	
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY 555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4	
		L-25 SHEET X OF X	



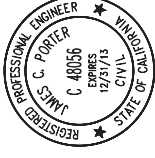
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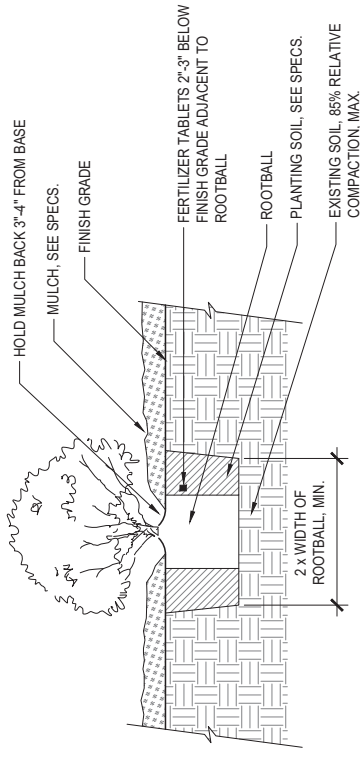
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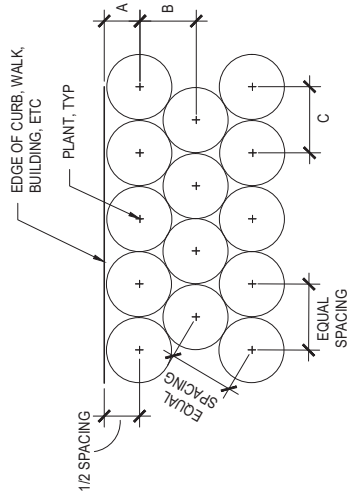
NOTE:
1. SEE SPECS FOR MORE INFORMATION REGARDING PLANT INSTALLATION AND SOIL PREPARATION.



3 SHRUB PLANTING

SCALE: 1" = 1'-0"

NOTES:
1. SEE PLANTING PLAN FOR SPACING BY PLANT SPECIES.
2. INSTALL TRIANGULATED PLANT LAYOUT, UNLESS OTHERWISE SHOWN ON PLANS.

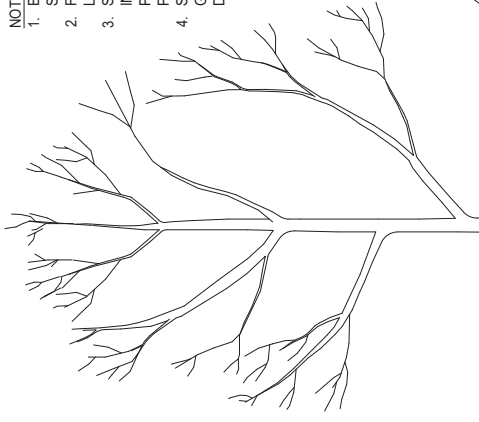


PLANT SPACING	A	B	C
1'-2"	6"	10"	12"
1'-6"	9"	1'-4"	1'-6"
2'-0"	12"	1'-9"	2'-0"
2'-6"	1'-3"	2'-2"	2'-6"
3'-0"	1'-6"	2'-7"	3'-0"
3'-6"	1'-9"	3'-0"	3'-6"
4'-0"	2'-0"	3'-6"	4'-0"
4'-6"	2'-3"	3'-11"	4'-6"
5'-0"	2'-6"	4'-4"	5'-0"

4 PLANTING LAYOUT

NTS

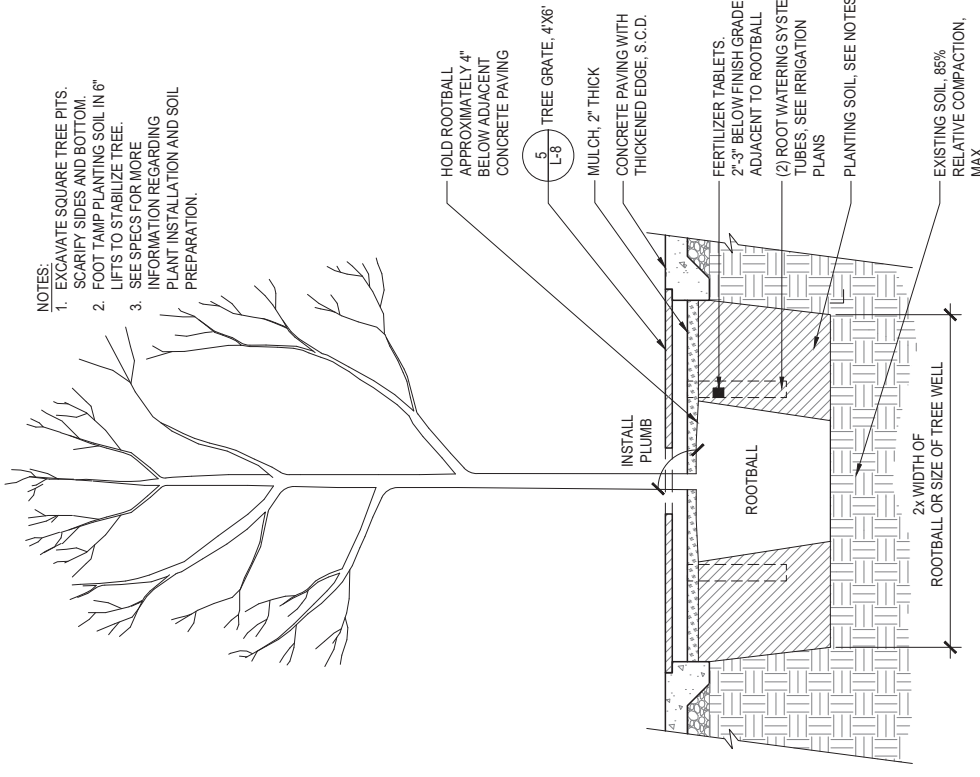
NOTES:
1. EXCAVATE SQUARE TREE PITS. SCARIFY SIDES AND BOTTOM. FOOT TAMP PLANTING SOIL IN 6" LIFTS TO STABILIZE TREE. SEE SPECS FOR MORE INFORMATION REGARDING PLANT INSTALLATION AND SOIL PREPARATION.
2. SEE CIVIL DRAWINGS FOR GREEN INFRASTRUCTURE DETAILS.



2 TREE WELL WITH GRAVEL JACKET

NTS

NOTES:
1. EXCAVATE SQUARE TREE PITS. SCARIFY SIDES AND BOTTOM. FOOT TAMP PLANTING SOIL IN 6" LIFTS TO STABILIZE TREE. SEE SPECS FOR MORE INFORMATION REGARDING PLANT INSTALLATION AND SOIL PREPARATION.



1 TREE PLANTING

NTS

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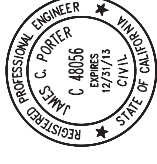
DESIGNED BY: COUNTY OF SAN MATEO
CHECKED BY: JI MIDDLEFIELD ROAD IMPROVEMENT PROJECT
DRAWN BY: LY PLANTING DETAILS
DATE: 04/06/2018
FILE NO.:
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
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L-26
SHEET X OF X

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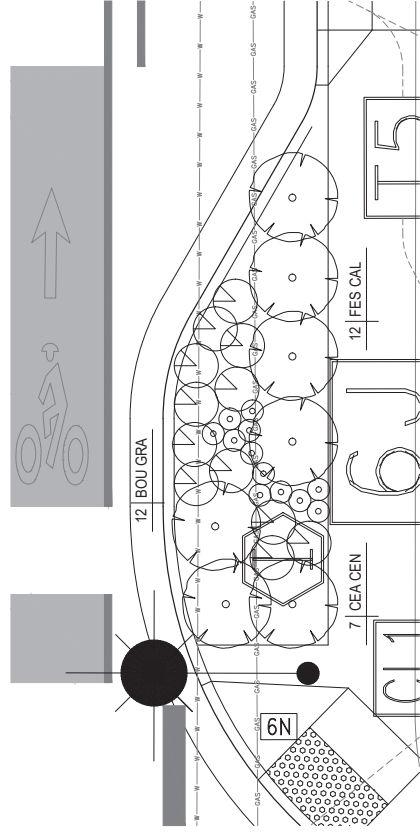
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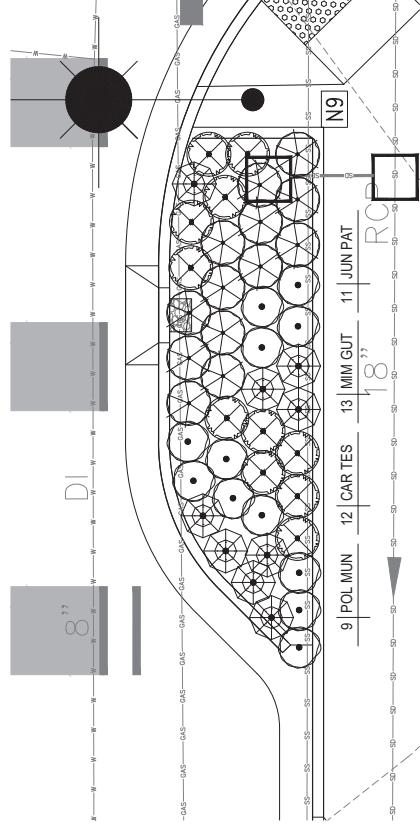
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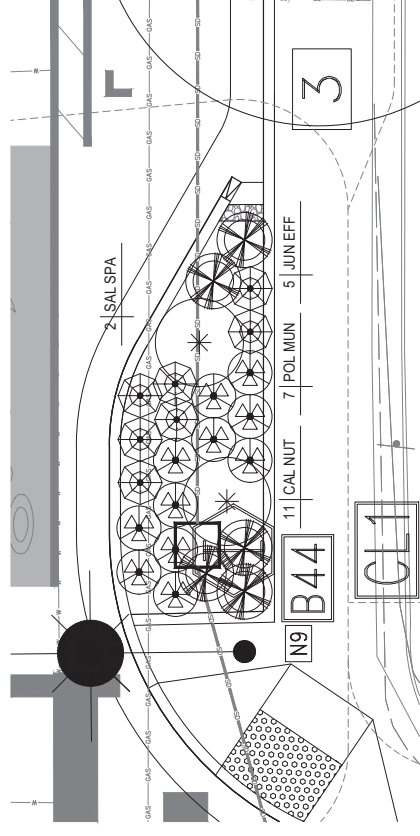
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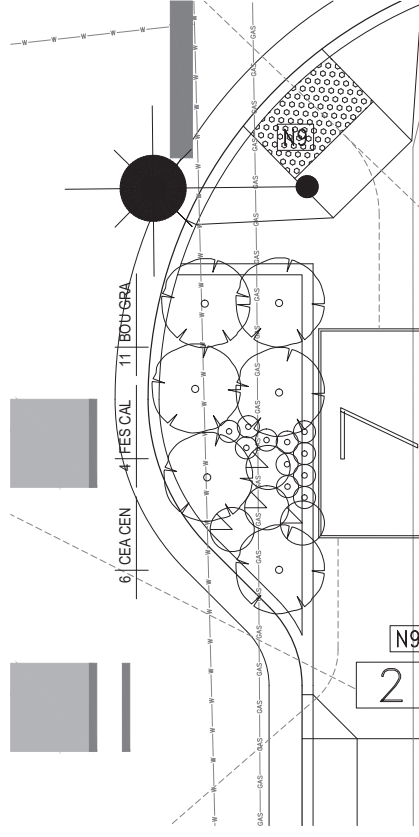
7 BULB-OUT PLANTER P3
1/4" = 10"



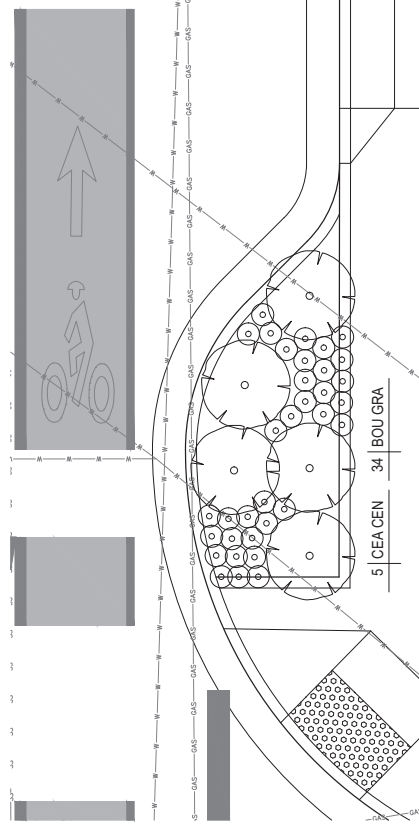
4 BIORETENTION PLANTER BP7
1/4" = 10"



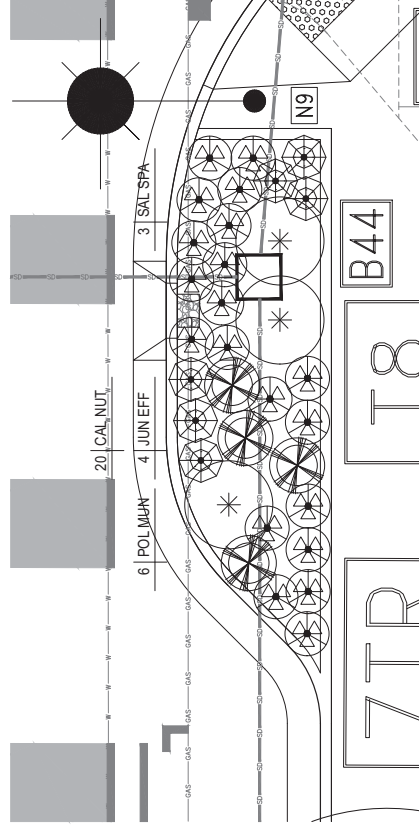
1 BIORETENTION PLANTER BP1
1/4" = 10"



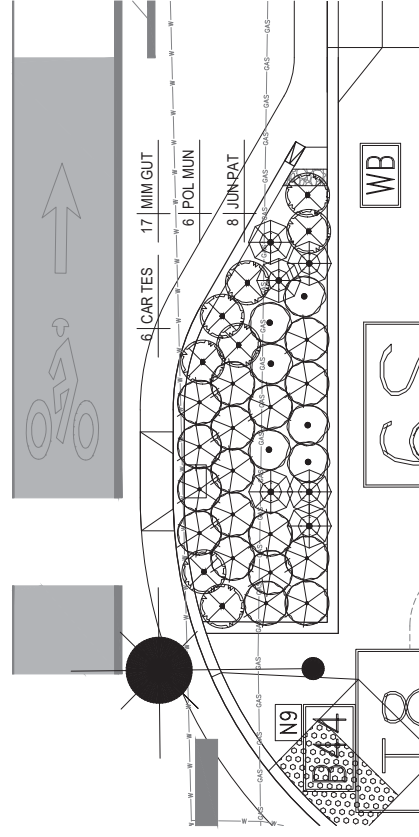
8 BULB-OUT PLANTER P5
1/4" = 10"



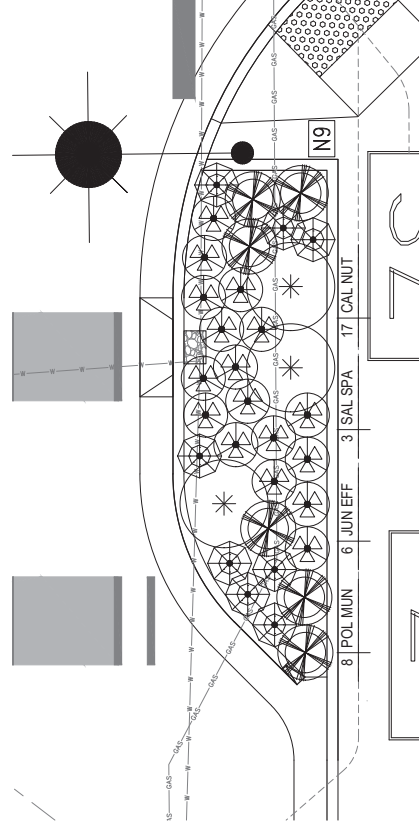
5 BULB-OUT PLANTER P1
1/4" = 10"



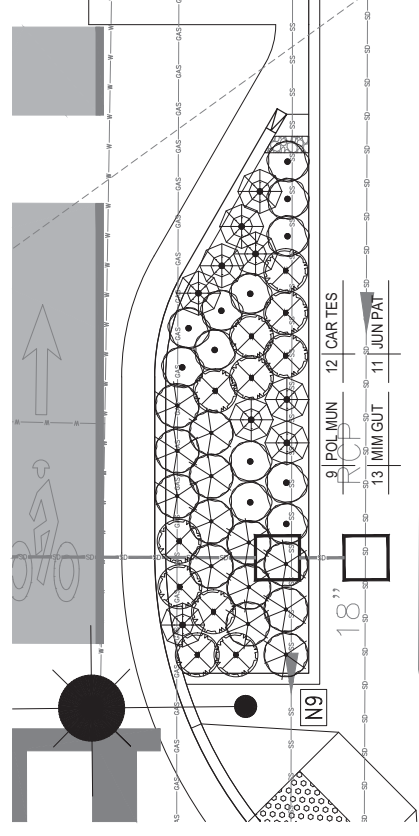
2 BIORETENTION PLANTER BP3
1/4" = 10"



9 BIORETENTION PLANTER BP11
1/4" = 10"



6 BIORETENTION PLANTER BP9
1/4" = 10"



3 BIORETENTION PLANTER BP5
1/4" = 10"

FILENAME: S:\ACTIVE JOBS\MIDDLEFIELD ROAD STREETScape IMPROVEMENTS 15033\CAD\CDR\RAH\PL\T1-L2-27-PLANTING DETAILS.DWG (L-27 PLANTING DETAILS)

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DESIGNED BY:	COUNTY OF SAN MATEO	SCALE:	
CHECKED BY:	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE:	04/06/2018
DRAWN BY:	PLANTING DETAILS	FILE NO.:	
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS	555 COUNTY CENTER, 5th FLOOR
		SAN MATEO COUNTY	REDWOOD CITY, CALIFORNIA 94063
FOR REDUCED PLANS ORIGINAL SCALE IS IN INCHES		0 1 2 3 4	
		L-27	
		SHEET X OF X	



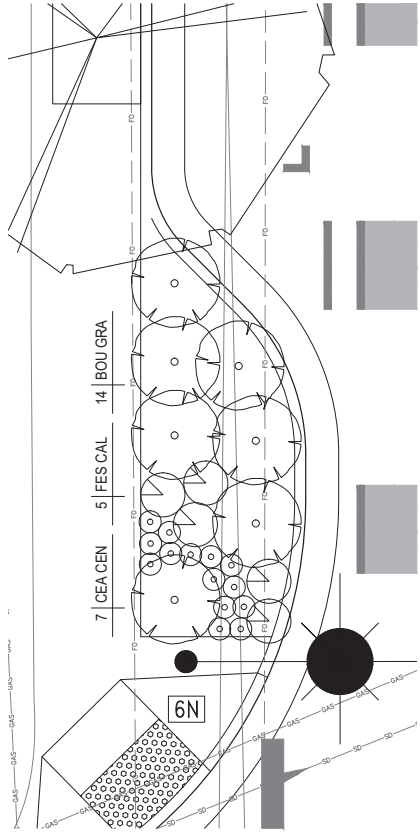
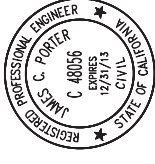
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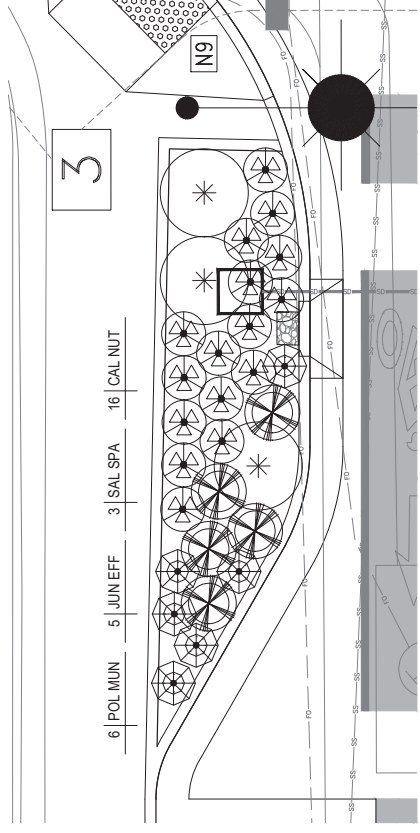
DATE:

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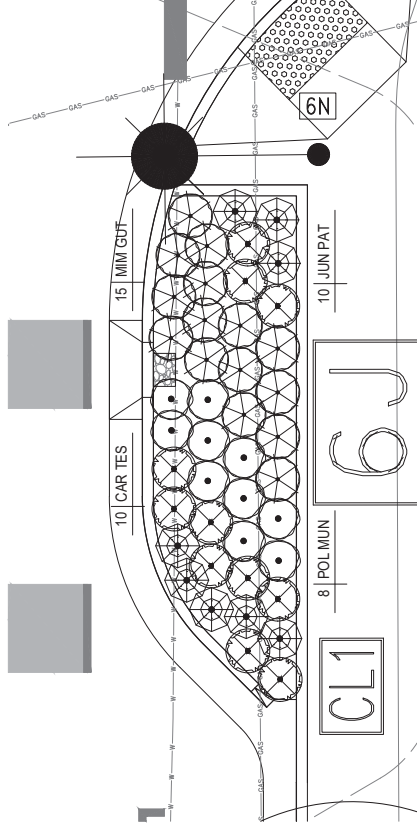
7 BULB-OUT PLANTER P4

1/4" = 10"



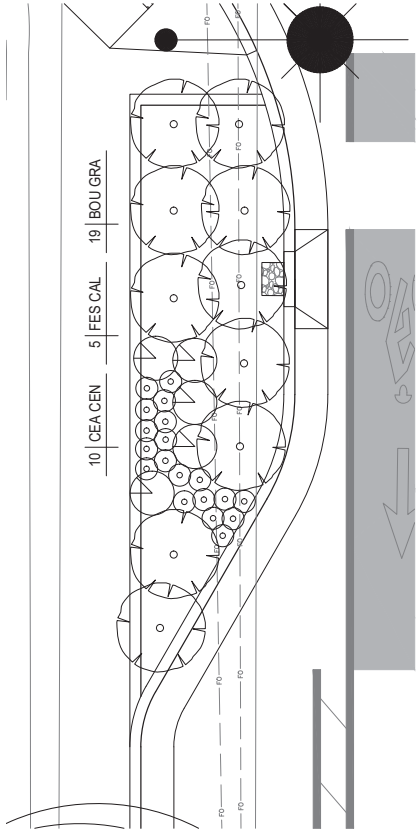
4 BIORETENTION PLANTER BP2

1/4" = 10"



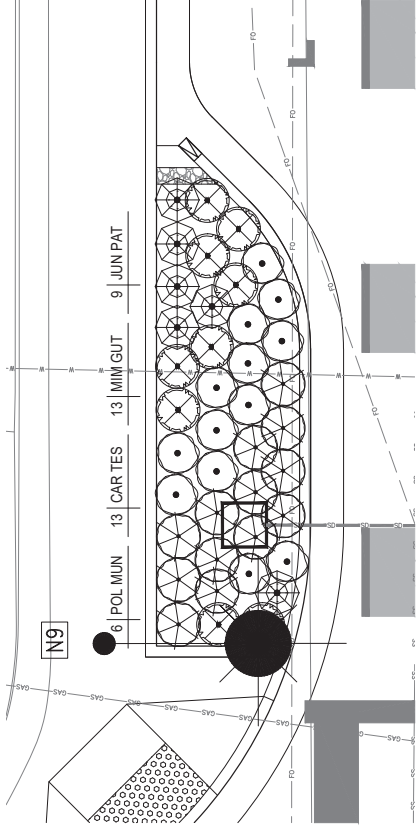
1 BIORETENTION PLANTER BP13

1/4" = 10"



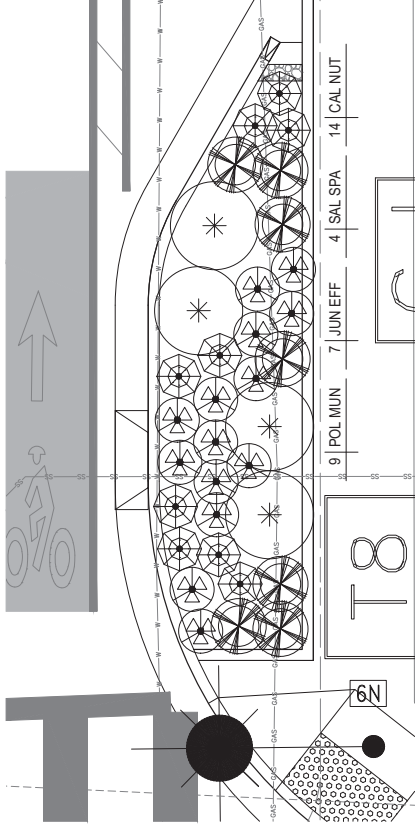
8 BULB-OUT PLANTER P6

1/4" = 10"



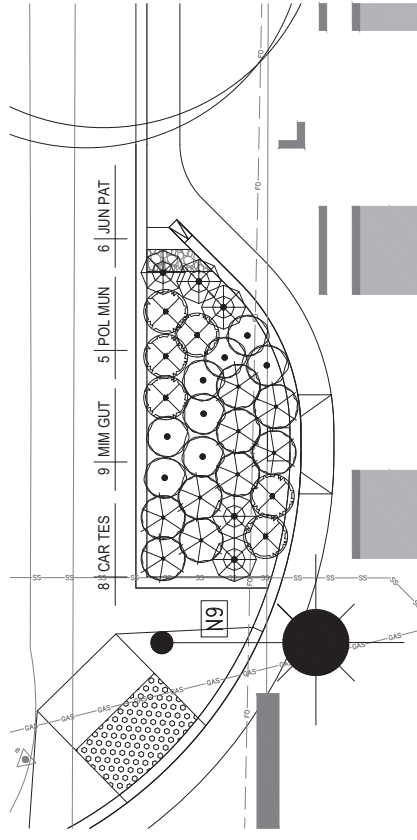
5 BIORETENTION PLANTER BP4

1/4" = 10"



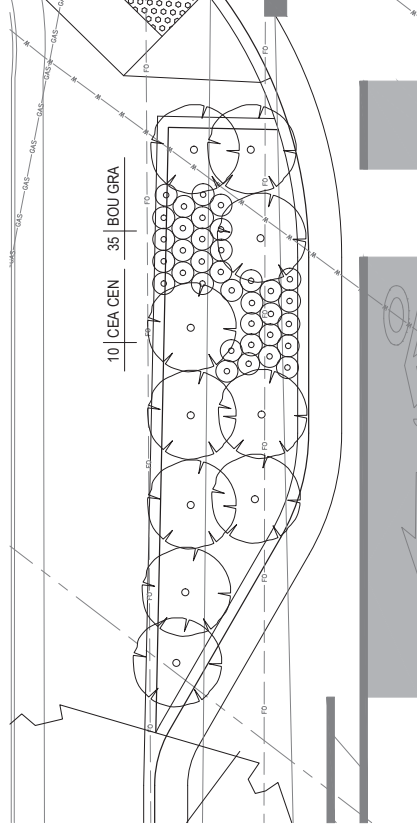
2 BIORETENTION PLANTER BP15

1/4" = 10"



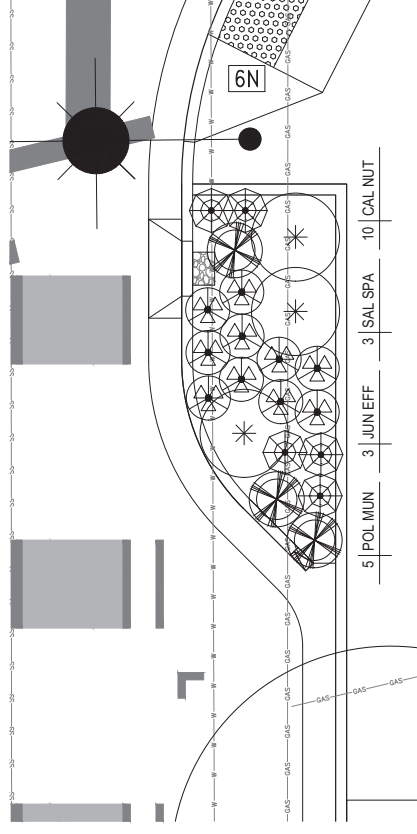
9 BIORETENTION PLANTER BP6

1/4" = 10"



6 BULB-OUT PLANTER P2

1/4" = 10"



3 BIORETENTION PLANTER BP17

1/4" = 10"

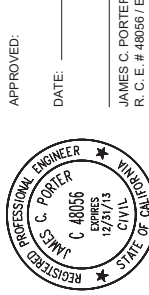
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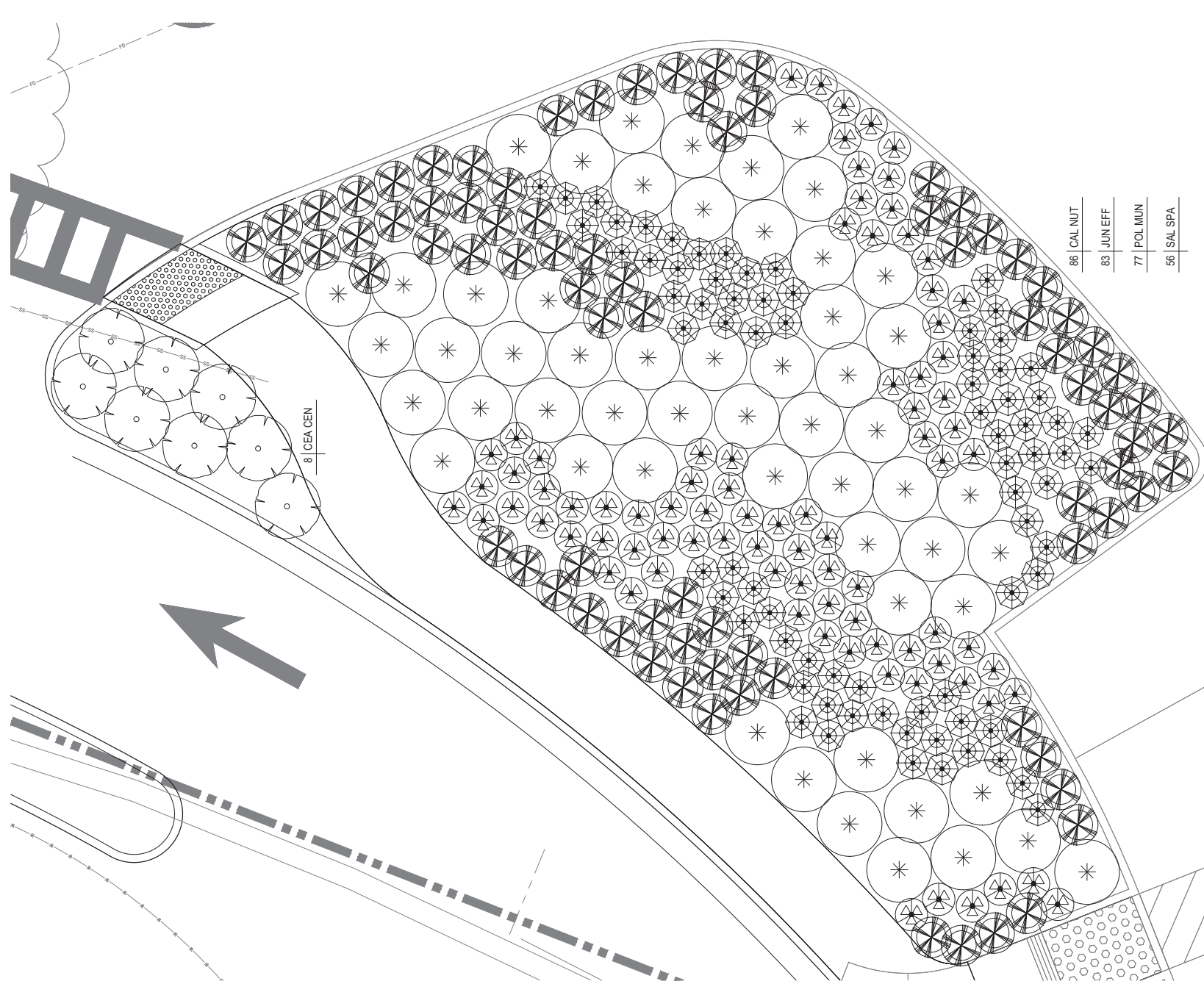
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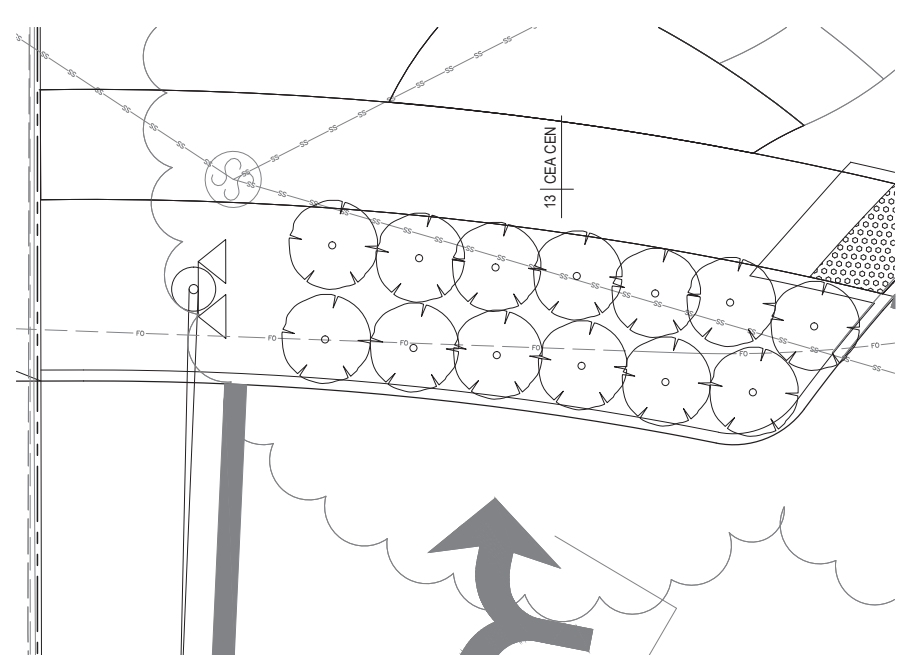
DESIGNED BY:	COUNTY OF SAN MATEO	SCALE:	04/08/2018
CHECKED BY: JI	MIDDLEFIELD ROAD IMPROVEMENT PROJECT	DATE:	
DRAWN BY: LY	PLANTING DETAILS	FILE NO.:	
REVISION	DATE	555 COUNTY CENTER, 5th FLOOR REDWOOD CITY, CALIFORNIA 94063	
FOR REVISED PLANS		L-28	
ORIGINAL SCALE IS IN INCHES		SHEET X OF X	



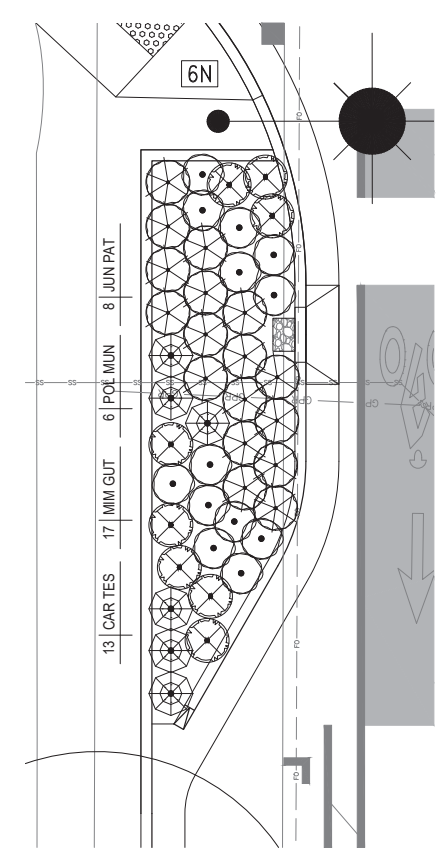
APPROVED: _____
 DATE: _____
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 R. C. # 48056 / EXPIRES 12-31-2013



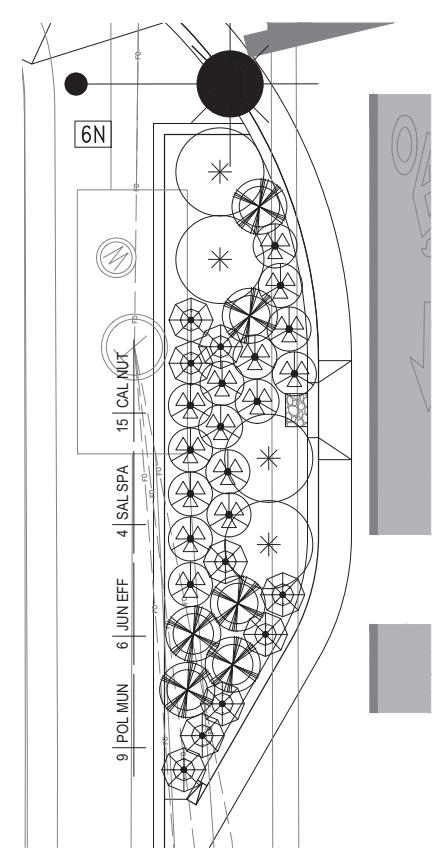
4 REDWOOD JUNCTION BIORETENTION PLANTER RBP1 & PLANTER RP2
 1/4" = 1/0"



3 REDWOOD JUNCTION PLANTER RP1
 1/4" = 1/0"



1 BIORETENTION PLANTER BP8
 1/4" = 1/0"

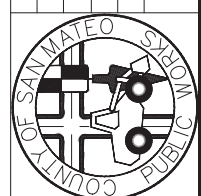


2 BIORETENTION PLANTER BP10
 1/4" = 1/0"

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4 REDWOOD JUNCTION BIORETENTION PLANTER RBP1 & PLANTER RP2
 1/4" = 1/0"

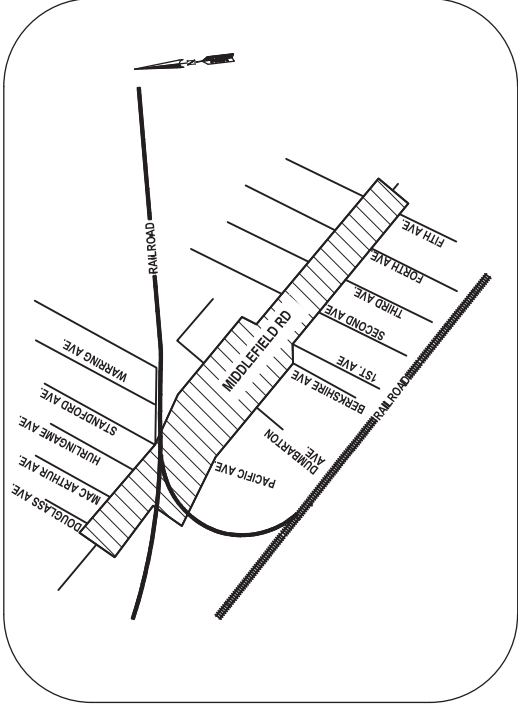
DESIGNED BY:		COUNTY OF SAN MATEO		SCALE:	90% CD - NOT FOR CONSTRUCTION
CHECKED BY: JI		MIDDLEFIELD ROAD IMPROVEMENT PROJECT		DATE:	04/08/2018
DRAWN BY: LY		PLANTING DETAILS		FILE NO.:	
REVISION	DATE	JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS		555 COUNTY CENTER, 5th FLOOR	
		SAN MATEO COUNTY		REDWOOD CITY, CALIFORNIA 94063	
FOR REVISION PLANS		ORIGINAL SCALE IS IN INCHES		L-29	
		0 1 2 3 4		SHEET X OF X	



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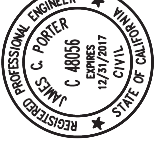


JOINT TRENCH COMPOSITE FOR MIDDLEFIELD ROAD REDWOOD CITY, CALIFORNIA



VICINITY MAP
REDWOOD CITY, CA.

APPROVED:



DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2017

- BC - BACK OF CURB
- BW - BACK OF WALK
- C - EXISTING CATV
- GAS - EXISTING PG&E GAS
- E - EXIST. PG&E ELECTRIC
- EUG - EXIST. UNDERGROUND
- FC - FACE OF CURB
- JT - JOINT TRENCH
- PL - PROPERTY LINE
- LG - LIP OF GUTTER
- SL - EXISTING STREET LIGHT
- TEL - EXISTING TELEPHONE
- UG - UNDERGROUND

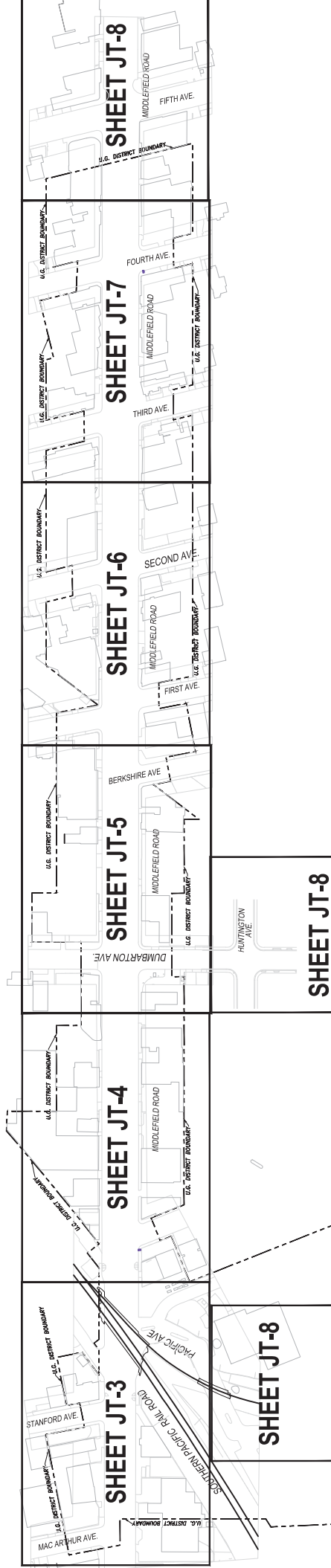
ABBREVIATIONS

SHEET INDEX	
JT-1	TITLE SHEET
JT-2	NOTES & DETAILS
JT-3	JOINT TRENCH COMPOSITE
JT-4	JOINT TRENCH COMPOSITE
JT-5	JOINT TRENCH COMPOSITE
JT-6	JOINT TRENCH COMPOSITE
JT-7	JOINT TRENCH COMPOSITE
JT-8	JOINT TRENCH COMPOSITE
JT-9	TRENCH SECTIONS
JT-10	TRENCH SECTIONS
JT-11	TRENCH SECTIONS
JT-12	RAILROAD JT XING

UTILITY APPROVALS		
UTILITY	APPROVED BY	DATE
PG&E ELECTRIC		
PG&E GAS		
AT&T (PHONE)		
COMCAST (CATV)		
CITY ENGINEER		

THIS IS NOT A BID DOCUMENT
THIS DRAWING HAS NOT YET BEEN REVIEWED BY
UTILITY COMPANIES AND IS SUBJECT TO CHANGE.

PG&E PM#S:
ELECTRIC: 74004302



SHEET MAP

NOT TO SCALE

OWNER:
COUNTY OF SAN MATEO
555 COUNTY CENTER 5TH FLOOR
REDWOOD CITY, CA. 94063
650-363-4100

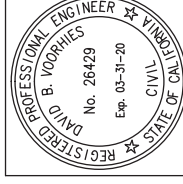
THESE PLANS WERE PREPARED IN CONJUNCTION WITH THE FOLLOWING PLANS:

CIVIL IMPROVEMENT PLANS/GRADING PLANS	RECEIVED	APPROVED
PANEL SIZES & SERVICE LOCATIONS	06-19-2017	PRELIMINARY
PG&E DESIGN (ELECTRIC)	10-24-2107	BY OTHERS
TELEPHONE	08-14-2107	PRELIMINARY
COMCAST	11-27-2107	PRELIMINARY
WAVE BROADBAND	11-09-2107	PRELIMINARY
CENTURY LINK	12-04-2107	PRELIMINARY
MCI/VERIZON - AS BUILT	11-30-2017	PRELIMINARY
C.L.C. - FIBER	06-12-2017	N/A
LANDSCAPE	12-12-2017	PRELIMINARY
LIGHT LOCATIONS	03-30-2018	PRELIMINARY

REGA DESIGN is not responsible for any subsequent changes or revisions. Other utilities shown are approximate and based on field survey and available utility information. It is the contractor's responsibility to verify the actual location and extent of utilities prior to the commencement of work. Physical verification of utility locations shall be performed by careful probing or hand digging in accordance with Article 6 of the CAG/OSHA construction safety orders.



**-PRELIMINARY-
NOT FOR CONSTRUCTION
PROGRESS SET**



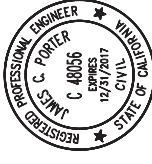
REVISION	DATE

FOR REDUCED PLANS
ORIGINAL SCALE IS IN INCHES

DESIGNED BY: M.W.
CHECKED BY: D.V.
DRAWN BY: M.W.
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY

MIDDLEFIELD ROAD
UNDERGROUND UTILITY DISTRICT (PHASE II)
JOINT TRENCH COMPOSITE
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

SCALE: N.T.S.
DATE: 04-23-2018
FILE NO: 15-646
RGA DATE LAST WORKED ON: 04-23-2018
SHEET 1 OF 12

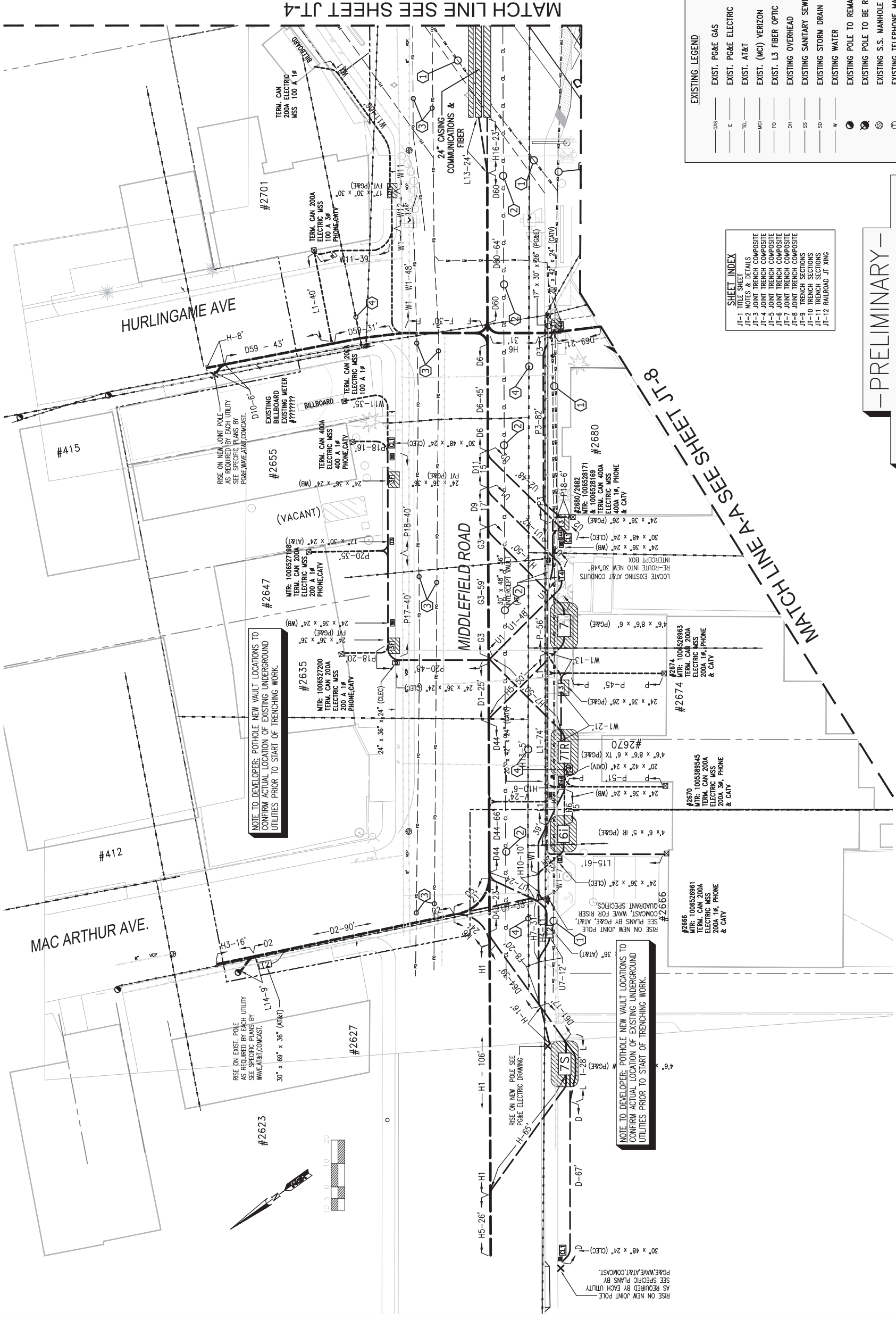


APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2017

PROPOSED LEGEND	
	PROPOSED JOINT TRENCH MAIN
	PROPOSED JOINT TRENCH MINOR
	4'-6" x 8'-6" x 6" SWITCH BOX (P&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER BOX
	4'-6" x 6'-6" x 6" SPLICE BOX (P&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER BOX
	4'-6" x 8'-6" x 6" DUPLEX TRANSFORMER (P&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER TRANSFORMER VAULT
	4'-6" x 6'-6" x 6" SWITCH BOX (P&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER BOX
	4'-6" x 6'-6" x 6" INTERRUPTER (P&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER BOX
	24" x 36" x 24" SPLICE BOX (P&E) WORKING SPACE SHOWN
	24" x 36" x 36" SPLICE BOX (P&E) WORKING SPACE SHOWN
	24" x 36" x 48" SPLICE BOX (P&E) FULL TRAFFIC RATED WORKING SPACE SHOWN
	17" x 30" x 26" SPLICE BOX (P&E) WORKING SPACE SHOWN
	17" x 30" x 30" SPLICE BOX (P&E) WORKING SPACE SHOWN
	17" x 30" x 48" SPLICE BOX (A1&T) WORKING SPACE SHOWN
	36" x 60" x 48" SPLICE BOX (A1&T) WORKING SPACE SHOWN
	30" x 48" x 36" SPLICE BOX (A1&T) WORKING SPACE SHOWN
	30" x 60" x 36" SPLICE BOX (A1&T) WORKING SPACE SHOWN
	17" x 30" x 24" SPLICE BOX (A1&T) WORKING SPACE SHOWN
	20" x 42" x 24" SPLICE BOX - (COMCAST)
	24" x 36" x 24" SPLICE BOX - (WAVE)
	30" x 48" x 24" SPLICE BOX (C.L.E.C.)
	24" x 36" x 24" SPLICE BOX (C.L.E.C.)
	STREET LIGHT WITH 30" BASE
	PEDESTRIAN LIGHT
	11" x 17" x 12" N-9 SPLICE BOX (S.L.)
	EXISTING JOINT POLE TO BE REMOVED
	EXISTING JOINT POLE TO REMAIN
	PROPOSED NEW JOINT POLE LOCATION
	IRRIGATION CONTROLLER

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 UTILITY COMPANIES AND IS SUBJECT TO CHANGE.

SCALE: 1"=20'
DATE: 04-23-2018
FILE NO: 15-646
555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
JT-3 SHEET 3 OF 12



MATCH LINE SEE SHEET JT-4

EXISTING LEGEND	
	EXIST. PG&E GAS
	EXIST. PG&E ELECTRIC
	EXIST. AT&T
	EXIST. (VZ) VERIZON
	EXIST. L3 FIBER OPTIC
	EXISTING OVERHEAD
	EXISTING SANITARY SEWER
	EXISTING STORM DRAIN
	EXISTING WATER
	EXISTING POLE TO REMAIN
	EXISTING POLE TO BE REMOVED
	EXISTING S.S. MANHOLE
	EXISTING TELEPHONE MANHOLE

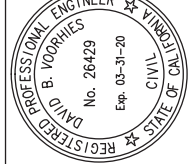
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JT-1	TITLE SHEET
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JT-8	JOINT TRENCH COMPOSITE
JT-9	TRENCH SECTIONS
JT-10	TRENCH SECTIONS
JT-11	TRENCH SECTIONS
JT-12	RAILROAD JT XING

NOT FOR CONSTRUCTION
 PRELIMINARY -
 PROGRESS SET

DESIGNED BY: M.W.	CHECKED BY: D.V.
DRAWN BY: M.W.	DATE: _____
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS SAN MATEO COUNTY	FOR REDUCED PLANS WORKED ON: ORIGINAL SCALE IS IN INCHES
C. Nguyen	0 1 2 3 4



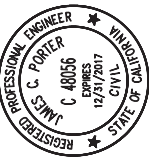
RGADesign LLC
 UTILITY CONSULTANTS & ENGINEERS - STREETLIGHT DESIGN
 6400 VILLAGE PARKWAY, SUITE 204 DUBLIN, CA 94568
 Tel: (925) 556-9860 Fax: (925) 556-9877



NOTE TO CONTRACTOR:
 FOR CONTRACTOR'S WORK RESPONSIBILITY, REFER TO
 JOINT TRENCH SHEET (JT-2)

CONTRACTOR NOTES:
 "POT HOLE" EXISTING PAVEMENT TO VERIFY EXISTING PAVEMENT SECTION CONSTRUCTION, PRIOR TO INSTALLING THE "JOINT TRENCH".
 OPEN-CUT TRENCHING MAY NOT BE PREFERRED METHOD OF CONSTRUCTION. CONTRACTOR MAY USE THE OPTION OF DIRECTIONAL DRILLING TO INSTALL CONDUITS.
 NO ADDITIONAL PAYMENTS WILL BE MADE BASED ON EXISTING CONDITIONS.



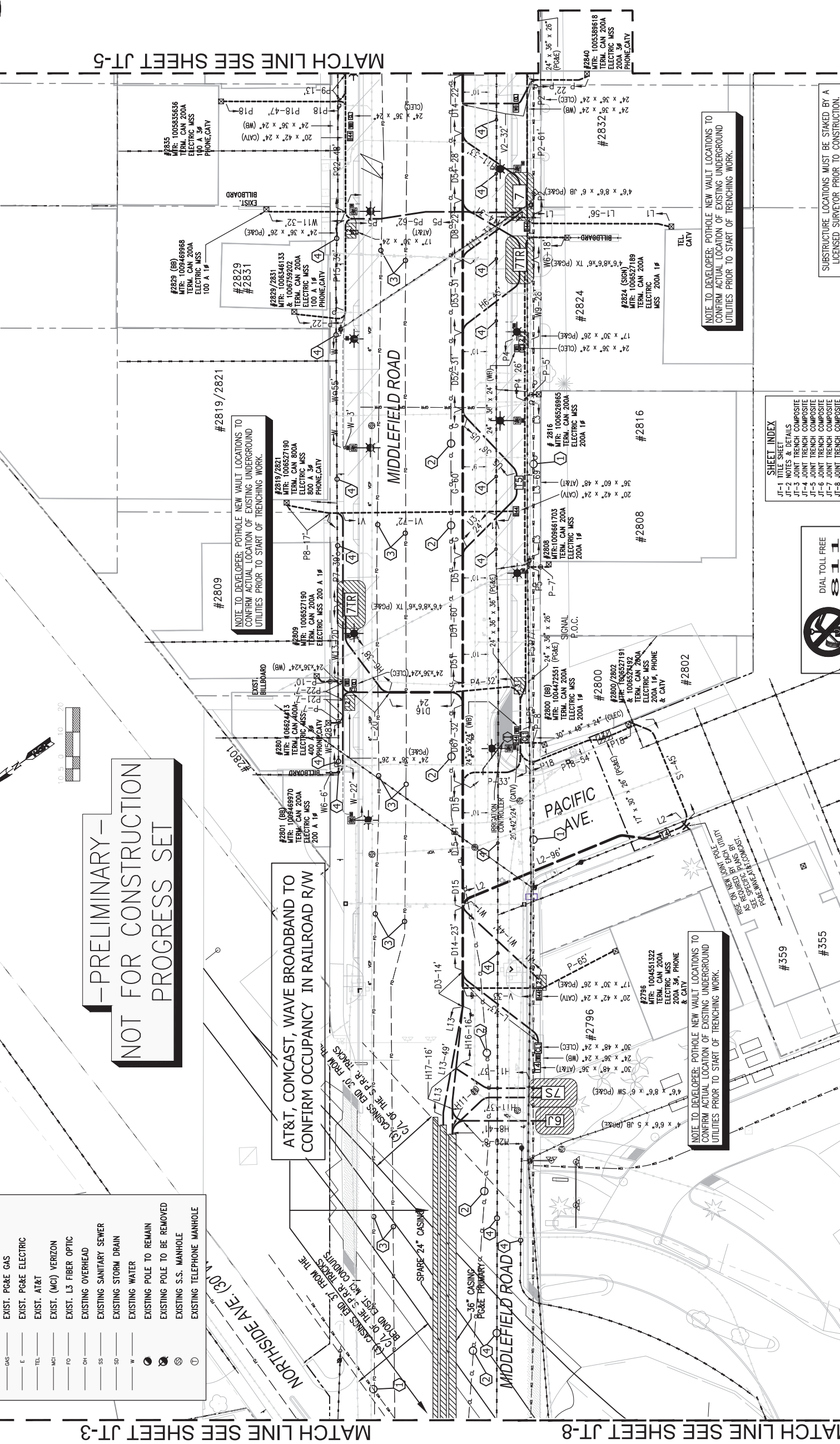


APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2017

EXISTING LEGEND	
— GAS	EXIST. PG&E GAS
— E	EXIST. PG&E ELECTRIC
— TEL	EXIST. AT&T
— MO	EXIST. (MO) VERIZON
— FO	EXIST. L3 FIBER OPTIC
— OH	EXISTING OVERHEAD
— SS	EXISTING SANITARY SEWER
— SD	EXISTING STORM DRAIN
— W	EXISTING WATER
●	EXISTING POLE TO REMAIN
○	EXISTING POLE TO BE REMOVED
○	EXISTING S.S. MANHOLE
○	EXISTING TELEPHONE MANHOLE

PROPOSED LEGEND	
—	PROPOSED JOINT TRENCH MAIN
—	PROPOSED JOINT TRENCH MINOR
7S	4'-6" x 6'-6" x 5' SWITCH BOX (PG&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER BOX
7	4'-6" x 8'-6" x 6" SPLICE BOX (PG&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER BOX
7TR	4'-6" x 8'-6" x 6" DUPLEX TYMCR. (PG&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER TRANSFORMER VAULT
6S	4' x 6'-6" x 5' SWITCH BOX (PG&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER BOX
6J	4' x 6'-6" x 5' SPLICE BOX (PG&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER BOX
6T	4' x 6'-6" x 5' INTERRUPTER (PG&E) WORKING SPACE SHOWN MAINTAIN 30" UNOBSTRUCTED OVERHEAD CLEARANCE OVER BOX
33	24" x 36" x 26" SPLICE BOX (PG&E) WORKING SPACE SHOWN
35	24" x 36" x 36" SPLICE BOX (PG&E) WORKING SPACE SHOWN
37	17" x 30" x 26" SPLICE BOX (PG&E) WORKING SPACE SHOWN
39	17" x 30" x 30" SPLICE BOX (PG&E) TRAFFIC RATED WORKING SPACE SHOWN
T8	48" x 78" x 48" SPLICE BOX (AT&T)
T5	36" x 60" x 48" SPLICE BOX (AT&T)
T4	30" x 48" x 36" SPLICE BOX (AT&T)
T2	30" x 60" x 36" SPLICE BOX (AT&T)
B2	20" x 42" x 24" SPLICE BOX - (COMCAST)
B3	24" x 36" x 24" SPLICE BOX - (NWE)
B4	30" x 48" x 24" SPLICE BOX (C.L.E.C)
B5	24" x 36" x 24" SPLICE BOX (C.L.E.C)
●	STREET LIGHT WITH 30" BASE
●	PEDESTRIAN LIGHT
●	11" x 17" x 12" N-9" SPLICE BOX (SL)
●	EXISTING JOINT POLE TO BE REMOVED
●	EXISTING JOINT POLE TO REMAIN
○	PROPOSED NEW JOINT POLE LOCATION
○	IRRIGATION CONTROLLER

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 UTILITY COMPANIES AND IS SUBJECT TO CHANGE.



MATCH LINE SEE SHEET JT-3

MATCH LINE SEE SHEET JT-8

— PRELIMINARY —
NOT FOR CONSTRUCTION
PROGRESS SET

AT&T, COMCAST, WAVE BROADBAND TO
 CONFIRM OCCUPANCY IN RAILROAD R/W

NOTE TO DEVELOPER: POT HOLE NEW VAULT LOCATIONS TO
 CONFIRM ACTUAL LOCATION OF EXISTING UNDERGROUND
 UTILITIES PRIOR TO START OF TRENCHING WORK.

NOTE TO DEVELOPER: POT HOLE NEW VAULT LOCATIONS TO
 CONFIRM ACTUAL LOCATION OF EXISTING UNDERGROUND
 UTILITIES PRIOR TO START OF TRENCHING WORK.

SHEET INDEX

JT-1	TITLE SHEET
JT-2	NOTES & DETAILS
JT-3	JOINT TRENCH COMPOSITE
JT-4	JOINT TRENCH COMPOSITE
JT-5	JOINT TRENCH COMPOSITE
JT-6	JOINT TRENCH COMPOSITE
JT-7	JOINT TRENCH COMPOSITE
JT-8	TRENCH SECTIONS
JT-9	TRENCH SECTIONS
JT-10	TRENCH SECTIONS
JT-11	TRENCH SECTIONS
JT-12	RAILROAD JT XING

DIAL TOLL FREE 811
 AT LEAST TWO DAYS BEFORE YOU DIG
 UNDERGROUND SERVICE ALERT OF NORTHERN CALIFORNIA

CONTRACTOR NOTES:
 "POT HOLE" EXISTING PAVEMENT TO VERIFY EXISTING PAVEMENT SECTION
 CONSTRUCTION, PRIOR TO INSTALLING THE "JOINT TRENCH".
 OPEN-CUT TRENCHING MAY NOT BE PREFERRED METHOD OF
 CONSTRUCTION. CONTRACTOR MAY USE THE OPTION OF DIRECTIONAL
 DRILLING TO INSTALL CONDUITS.
 NO ADDITIONAL PAYMENTS WILL BE MADE BASED ON EXISTING CONDITIONS.

**FOR CONTRACTOR'S WORK RESPONSIBILITY, REFER TO
 JOINT TRENCH SHEET (JT-2)**

NOTE TO CONTRACTOR:
 SUBSTRUCTURE LOCATIONS MUST BE STAKED BY A
 LICENSED SURVEYOR PRIOR TO CONSTRUCTION.
 SEE CONSTRUCTION NOTES ON JOINT TRENCH TITLE
 SHEET (JT-2) REGARDING EXISTING CONDITIONS.

DESIGNED BY: M.W.
CHECKED BY: D.V.
DRAWN BY: JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 SAN MATEO COUNTY

**FOR REDUCED PLANS
 WORKED ON:** 0 1 2 3 4
ORIGINAL SCALE IS IN INCHES
 C. Nguyen
 RGA PROJECT MANAGER

REVISION DATE

SCALE: 1"=20'
DATE: 04-23-2018
FILE NO.: 15-646
**555 COUNTY CENTER, 5TH FLOOR
 REDWOOD CITY, CALIFORNIA 94063**

**UNDERGROUND UTILITY DISTRICT (PHASE II)
 JOINT TRENCH COMPOSITE**

MIDDLEFIELD ROAD

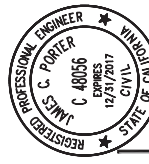
REGISTERED PROFESSIONAL ENGINEER
DAVID B. VOORHIES
 No. 26429
 Exp. 03-31-20
 CIVIL T. VIETRI
 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
LLC
Design
 UTILITY CONSULTANTS & ENGINEERS - STREETLIGHT DESIGN
 6400 VILLAGE PARKWAY, SUITE 204 DUBLIN, CA 94568
 Tel (925) 556-9880 Fax (925) 556-9877

COUNTY OF SAN MATEO PUBLIC WORKS

JT-4
 SHEET 4 OF 12

FILENAME: \\P0RBOX\PROJECTS\2015\15-646 MIDDLEFIELD ROAD, REDWOOD CITY\PGA WORK\MS 15-646 JT RGA COLORS.MWG (JT-4)



APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2017

PROPOSED LEGEND

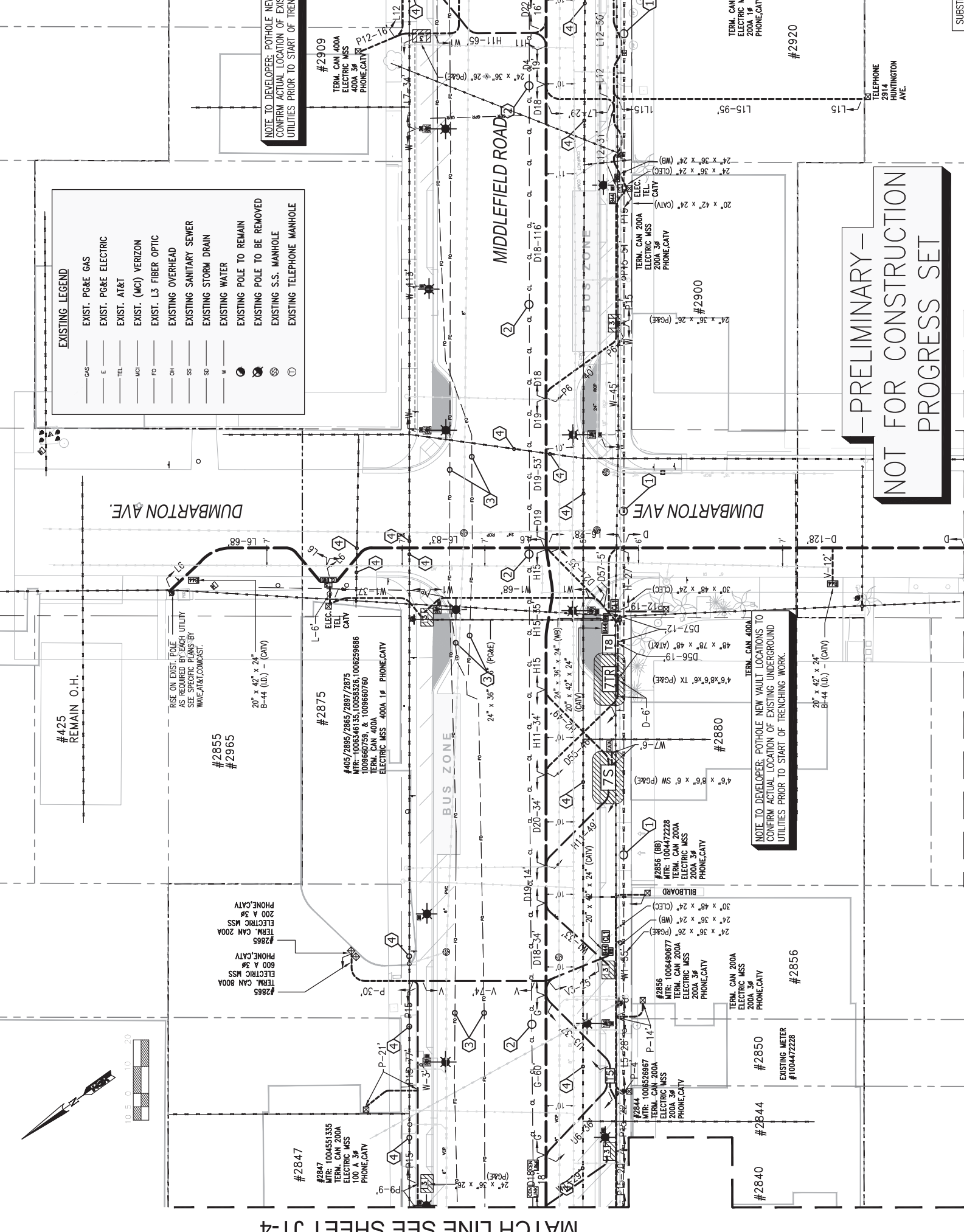
- PROPOSED JOINT TRENCH MAIN
- PROPOSED JOINT TRENCH MINOR
- 4'-6" x 8'-6" x 6" SWITCH BOX (P&E)
WORKING SPACE SHOWN UNRESTRICTED OVERHEAD CLEARANCE OVER BOX
- 4'-6" x 8'-6" x 6" SPUICE BOX (P&E)
WORKING SPACE SHOWN UNRESTRICTED OVERHEAD CLEARANCE OVER BOX
- 4'-6" x 8'-6" x 6" DUPLEX TRFM. (P&E)
WORKING SPACE SHOWN UNRESTRICTED OVERHEAD CLEARANCE OVER TRANSFORMER VAULT
- 4' x 6'-6" x 5" SWITCH BOX (P&E)
WORKING SPACE SHOWN UNRESTRICTED OVERHEAD CLEARANCE OVER BOX
- 4' x 6'-6" x 5" SPUICE BOX (P&E)
WORKING SPACE SHOWN UNRESTRICTED OVERHEAD CLEARANCE OVER BOX
- 4' x 6'-6" x 5" INTERRUPTER (P&E)
WORKING SPACE SHOWN UNRESTRICTED OVERHEAD CLEARANCE OVER BOX
- 24' x 36' x 26" SPUICE BOX (P&E)
WORKING SPACE SHOWN
- 24' x 36' x 36" SPUICE BOX (P&E)
FULL TRAFFIC RATED WORKING SPACE SHOWN
- 17' x 30' x 26" SPUICE BOX (P&E)
TRAFFIC RATED WORKING SPACE SHOWN
- 17' x 30' x 30" SPUICE BOX (P&E)
TRAFFIC RATED WORKING SPACE SHOWN
- 48' x 78' x 48" SPUICE BOX (A1&T)
- 36' x 60' x 48" SPUICE BOX (A1&T)
- 30' x 48' x 36" SPUICE BOX (A1&T)
- 30' x 60' x 36" SPUICE BOX (A1&T)
- 17' x 30' x 24" SPUICE BOX (A1&T)
- 20' x 42' x 24" SPUICE BOX - (COMCAST)
- 24' x 36' x 24" SPUICE BOX - (WAVE)
- 30' x 48' x 24" SPUICE BOX (C,LEC)
- 24' x 36' x 24" SPUICE BOX (C,LEC)
- STREET LIGHT WITH 30" BASE
- PEDESTRIAN LIGHT
- 11"x17"x12" N-9" SPUICE BOX (S,L)
- EXISTING JOINT POLE TO BE REMOVED
- EXISTING JOINT POLE TO REMAIN
- PROPOSED NEW JOINT POLE LOCATION
- IRRIGATION CONTROLLER

EXISTING LEGEND

- EXIST. P&E GAS
- EXIST. P&E ELECTRIC
- EXIST. AT&T
- EXIST. (MC) VERIZON
- EXIST. L3 FIBER OPTIC
- EXISTING OVERHEAD
- EXISTING SANITARY SEWER
- EXISTING STORM DRAIN
- EXISTING WATER
- EXISTING POLE TO BE REMOVED
- EXISTING S.S. MANHOLE
- EXISTING TELEPHONE MANHOLE

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- JT-1 TITLE SHEET
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- JT-8 JOINT TRENCH COMPOSITE
- JT-9 TRENCH SECTIONS
- JT-10 TRENCH SECTIONS
- JT-11 TRENCH SECTIONS
- JT-12 RAILROAD JT ANG



NOTE TO DEVELOPER: POT HOLE NEW VAULT LOCATIONS TO CONFIRM ACTUAL LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO START OF TRENCHING WORK.

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PROTECT IN PLACE - EXISTING UNDERGROUND UTILITIES DURING JOINT TRENCH CONSTRUCTION

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APPROVED: _____
 DATE: _____

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2017

PROTECT IN PLACE - EXISTING UNDERGROUND UTILITIES DURING JOINT TRENCH CONSTRUCTION

PROTECT IN PLACE - EXISTING UNDERGROUND UTILITIES DURING JOINT TRENCH CONSTRUCTION

PROTECT IN PLACE - EXISTING UNDERGROUND UTILITIES DURING JOINT TRENCH CONSTRUCTION

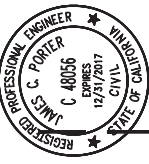
APPROVED: _____
 DATE: _____

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2017

PROTECT IN PLACE - EXISTING UNDERGROUND UTILITIES DURING JOINT TRENCH CONSTRUCTION

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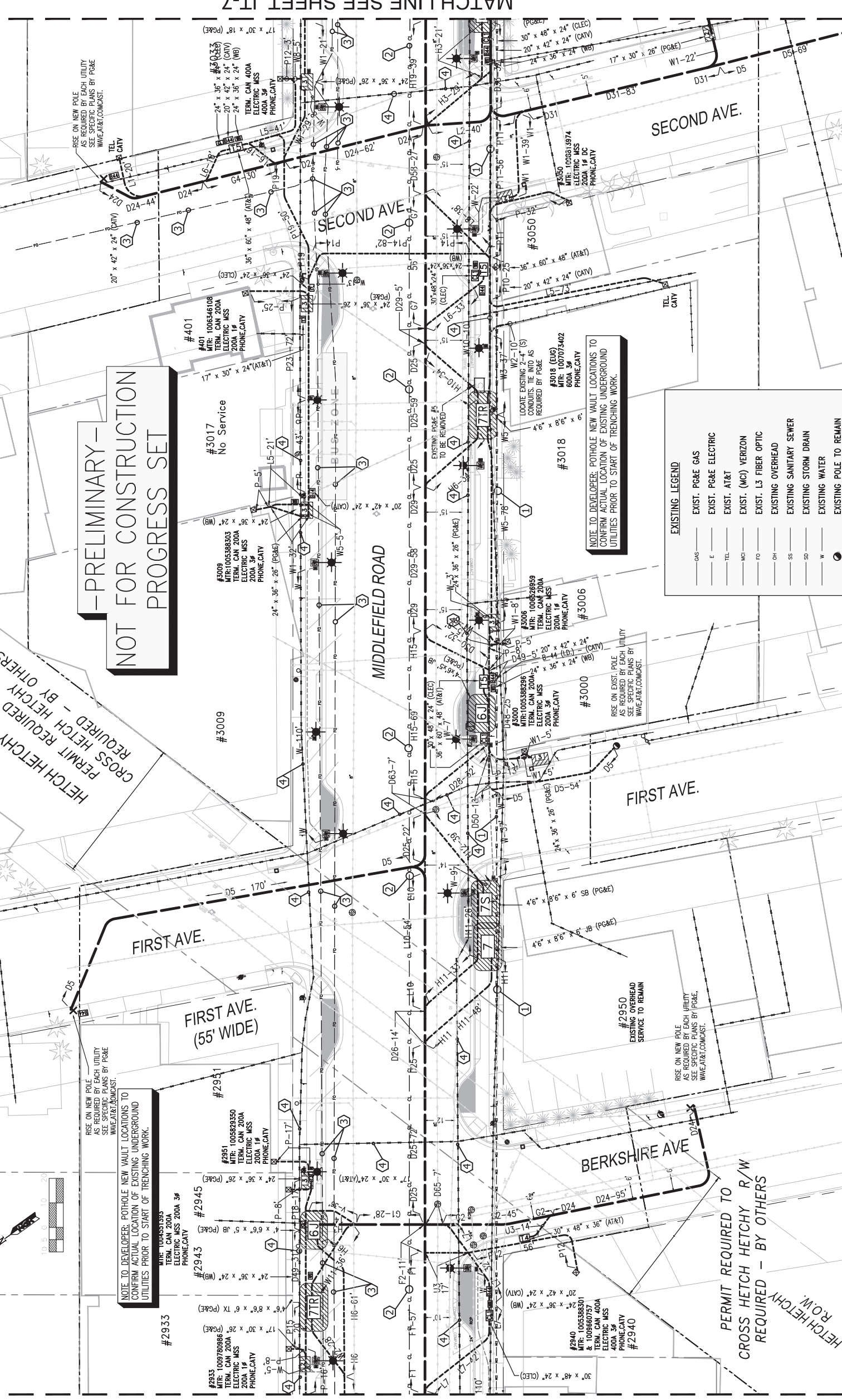


APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2017

PROPOSED LEGEND	
	PROPOSED JOINT TRENCH MAIN
	PROPOSED JOINT TRENCH MINOR
	WORKING SPACE 6'-6" x 6'-6" SWITCH BOX (PO&E) WORKING SPACE SHOWN UNSTRUCTURED OVERHEAD CLEARANCE OVER BOX
	WORKING SPACE 4'-5" x 8'-6" SPURCE BOX (PO&E) MAINTAIN 30" UNSTRUCTURED OVERHEAD CLEARANCE OVER BOX
	WORKING SPACE 4'-6" x 6'-6" DUPLEX TYPHR. (PO&E) WORKING SPACE SHOWN UNSTRUCTURED OVERHEAD CLEARANCE OVER TRANSFORMER VAULT
	WORKING SPACE 4'-6" x 6'-6" 5' SWITCH BOX (PO&E) MAINTAIN 30" UNSTRUCTURED OVERHEAD CLEARANCE OVER BOX
	WORKING SPACE 4'-6" x 6'-6" SPURCE BOX (PO&E) MAINTAIN 30" UNSTRUCTURED OVERHEAD CLEARANCE OVER BOX
	WORKING SPACE 4'-6" x 6'-6" INTERUPTER (PO&E) MAINTAIN 30" UNSTRUCTURED OVERHEAD CLEARANCE OVER BOX
	24" x 36" x 26" SPURCE BOX (PO&E) WORKING SPACE SHOWN
	24" x 36" x 36" SPURCE BOX (PO&E) FULL TRAFFIC RATED WORKING SPACE SHOWN
	17" x 30" x 26" SPURCE BOX (PO&E) WORKING SPACE SHOWN
	17" x 30" x 30" SPURCE BOX (PO&E) TRAFFIC RATED WORKING SPACE SHOWN
	48" x 78" x 48" SPURCE BOX (AT&T)
	36" x 60" x 48" SPURCE BOX (AT&T)
	30" x 48" x 36" SPURCE BOX (AT&T)
	30" x 60" x 36" SPURCE BOX (AT&T)
	17" x 30" x 24" SPURCE BOX (AT&T)
	20" x 42" x 24" SPURCE BOX - (COMCAST)
	24" x 36" x 24" SPURCE BOX - (WAVE)
	30" x 48" x 24" SPURCE BOX (C.L.E.C)
	24" x 36" x 24" SPURCE BOX (C.L.E.C)
	STREET LIGHT WITH 30" BASE
	PEDESTRIAN LIGHT
	11"x17"x12" "M-9" SPURCE BOX (S.L.)
	EXISTING JOINT POLE TO BE REMOVED
	EXISTING JOINT POLE TO REMAIN
	PROPOSED NEW JOINT POLE LOCATION
	IRRIGATION CONTROLLER

THIS IS NOT A BID DOCUMENT
 THIS DRAWING HAS NOT YET BEEN REVIEWED BY UTILITY COMPANIES AND IS SUBJECT TO CHANGE.

DESIGNED BY: M.W.	MIDDLEFIELD ROAD
CHECKED BY: D.V.	UNDERGROUND UTILITY DISTRICT (PHASE II)
DRAWN BY: M.W.	JOINT TRENCH COMPOSITE
DATE	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION	SAN MATEO COUNTY
FOR REDUCED PLANS WORKED ON: 04-23-2018	
ORIGINAL SCALE IS IN INCHES	
FOR PROJECT MANAGER	
C. Nguyen	
JT-6	
SHEET 6 OF 12	



NOT FOR CONSTRUCTION
PROGRESS SET

EXISTING LEGEND	
	EXIST. PO&E GAS
	EXIST. PO&E ELECTRIC
	EXIST. AT&T
	EXIST. (MCI) VERIZON
	EXIST. L3 FIBER OPTIC
	EXISTING OVERHEAD
	EXISTING SANITARY SEWER
	EXISTING STORM DRAIN
	EXISTING WATER
	EXISTING POLE TO REMAIN
	EXISTING POLE TO BE REMOVED
	EXISTING S.S. MANHOLE
	EXISTING TELEPHONE MANHOLE

NOTE TO DEVELOPER: POT HOLE NEW VAULT LOCATIONS TO CONFIRM ACTUAL LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO START OF TRENCHING WORK.

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PERMIT REQUIRED TO CROSS HETCH HETCHY R/W BY OTHERS

PERMIT REQUIRED TO CROSS HETCH HETCHY R/W BY OTHERS

JT-1	TITLE SHEET
JT-2	NOTES & DETAILS
JT-3	JOINT TRENCH COMPOSITE
JT-4	JOINT TRENCH COMPOSITE
JT-5	JOINT TRENCH COMPOSITE
JT-6	JOINT TRENCH COMPOSITE
JT-7	JOINT TRENCH COMPOSITE
JT-8	JOINT TRENCH COMPOSITE
JT-9	TRENCH SECTIONS
JT-10	TRENCH SECTIONS
JT-11	TRENCH SECTIONS
JT-12	RAILROAD JT XING



NOTE TO CONTRACTOR:
 FOR CONTRACTOR'S WORK RESPONSIBILITY, REFER TO JOINT TRENCH SHEET (JT-2)

CONTRACTOR NOTES:
 "POT HOLE" EXISTING PAVEMENT TO VERIFY EXISTING PAVEMENT SECTION CONSTRUCTION, PRIOR TO INSTALLING THE "JOINT TRENCH".
 OPEN-CUT TRENCHING MAY NOT BE PREFERRED METHOD OF CONSTRUCTION. CONTRACTOR MAY USE THE OPTION OF DIRECTIONAL DRILLING TO INSTALL CONDUITS.
 NO ADDITIONAL PAYMENTS WILL BE MADE BASED ON EXISTING CONDITIONS.

REGA Design LLC
 UTILITY CONSULTANTS & ENGINEERS - STREETLIGHT DESIGN
 6400 VILLAGE PARKWAY, SUITE 204 DUBLIN, CA 94568
 Tel (925) 556-9880 Fax (925) 556-9877

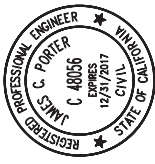
REGISTERED PROFESSIONAL ENGINEER - CIVIL
 DAVID B. VOORHIES
 No. 26429
 Exp. 03-31-20
 CIVIL T. CA



DESIGNED BY: M.W.	MIDDLEFIELD ROAD
CHECKED BY: D.V.	UNDERGROUND UTILITY DISTRICT (PHASE II)
DRAWN BY: M.W.	JOINT TRENCH COMPOSITE
DATE	555 COUNTY CENTER, 5TH FLOOR REDWOOD CITY, CALIFORNIA 94063
REVISION	SAN MATEO COUNTY
FOR REDUCED PLANS WORKED ON: 04-23-2018	
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FOR PROJECT MANAGER	
C. Nguyen	
JT-6	
SHEET 6 OF 12	

RISE ON NEW JOINT POLE AS REQUIRED BY EACH UTILITY AS SPECIFIED BY EACH UTILITY SEE SPECIFIC PLANS BY POLE MANUFACTURER/COMCAST.

APPROVED: _____ DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. E. # 48056 / EXPIRES 12-31-2017



PROPOSED LEGEND

	PROPOSED JOINT TRENCH MAIN
	PROPOSED JOINT TRENCH MINOR
	4'-6" x 8'-6" x 6" SWITCH BOX (PG&E) WORKING SPACE SHOWN MAINTAIN 30" UNRESTRICTED OVERHEAD CLEARANCE OVER BOX
	4'-6" x 8'-6" x 5" SPLICE BOX (PG&E) WORKING SPACE SHOWN MAINTAIN 30" UNRESTRICTED OVERHEAD CLEARANCE OVER BOX
	4'-6" x 8'-6" x 6" DUPLEX TRENCH (PG&E) WORKING SPACE SHOWN MAINTAIN 30" UNRESTRICTED OVERHEAD CLEARANCE OVER TRANSFORMER VAULT
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	20" x 42" x 24" SPLICE BOX - (COMCAST)
	24" x 36" x 24" SPLICE BOX - (WAVE)
	30" x 48" x 24" SPLICE BOX (CLEC)
	24" x 36" x 24" SPLICE BOX (CLEC)
	STREET LIGHT WITH 30" BASE
	PEDESTRIAN LIGHT
	11" x 17" x 12" 1/2" x 9" SPLICE BOX (SL)
	EXISTING JOINT POLE TO BE REMOVED
	EXISTING JOINT POLE TO REMAIN
	PROPOSED NEW JOINT POLE LOCATION
	IRRIGATION CONTROLLER

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PROTECT IN PLACE - EXISTING

1	PROTECT IN PLACE - EXISTING JOINT TRENCH CONSTRUCTION
2	PROTECT IN PLACE - EXISTING CENTURY LINK CONDUITS DURING JOINT TRENCH CONSTRUCTION
3	PROTECT IN PLACE - EXISTING FIBER CONDUITS DURING JOINT TRENCH CONSTRUCTION
4	PROTECT IN PLACE - EXISTING JOINT TRENCH CONSTRUCTION
5	PROTECT IN PLACE - EXISTING JOINT TRENCH CONSTRUCTION

DESIGNED BY: M.W.
CHECKED BY: D.V.
DRAWN BY: M.W.
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 SAN MATEO COUNTY

DATE: 04-23-2018
FILE NO.: 15-646

SCALE: 1"=20'
DATE: 04-23-2018



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JT-11	TRENCH SECTIONS
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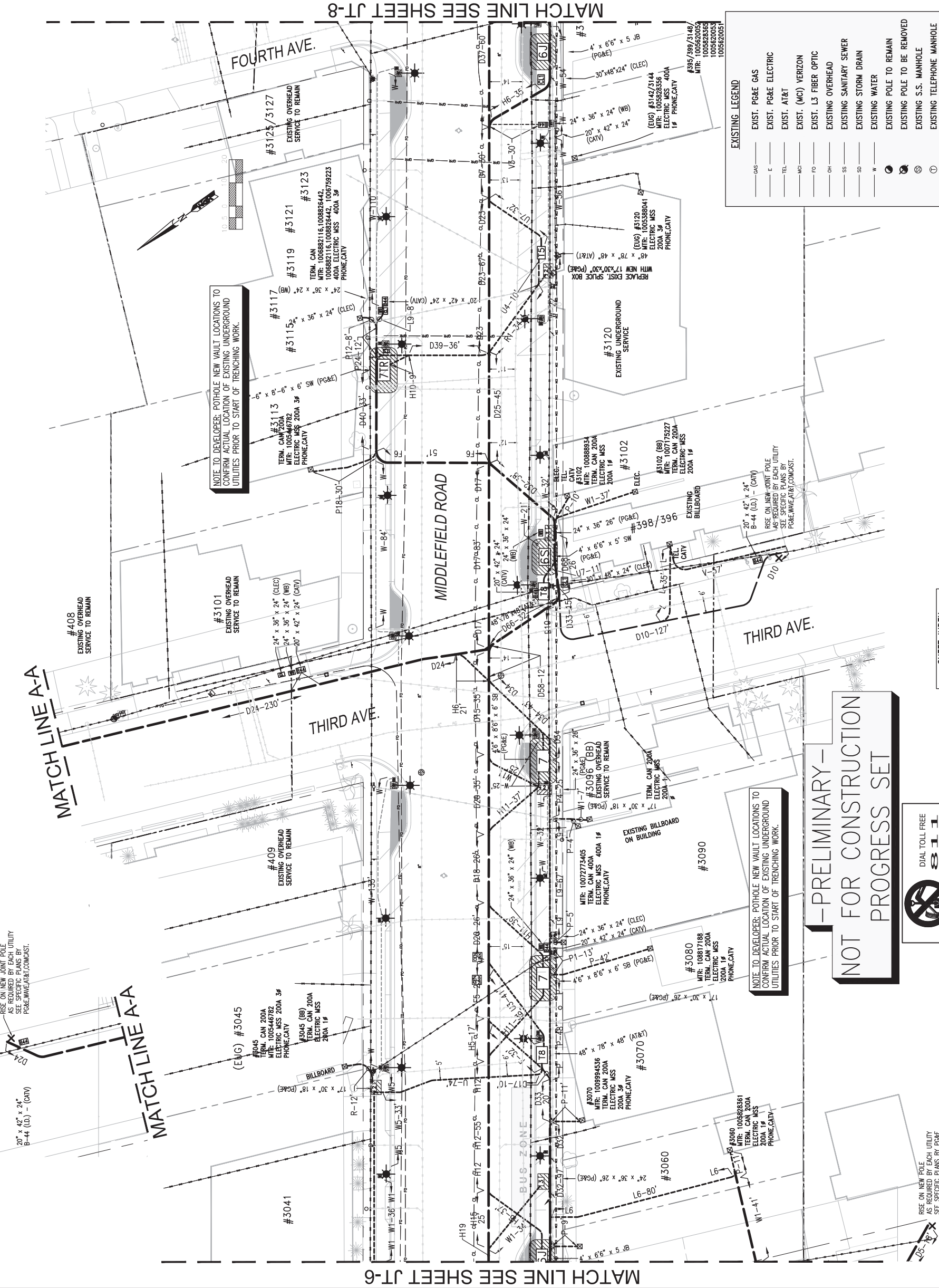
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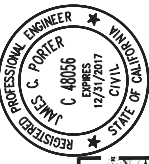
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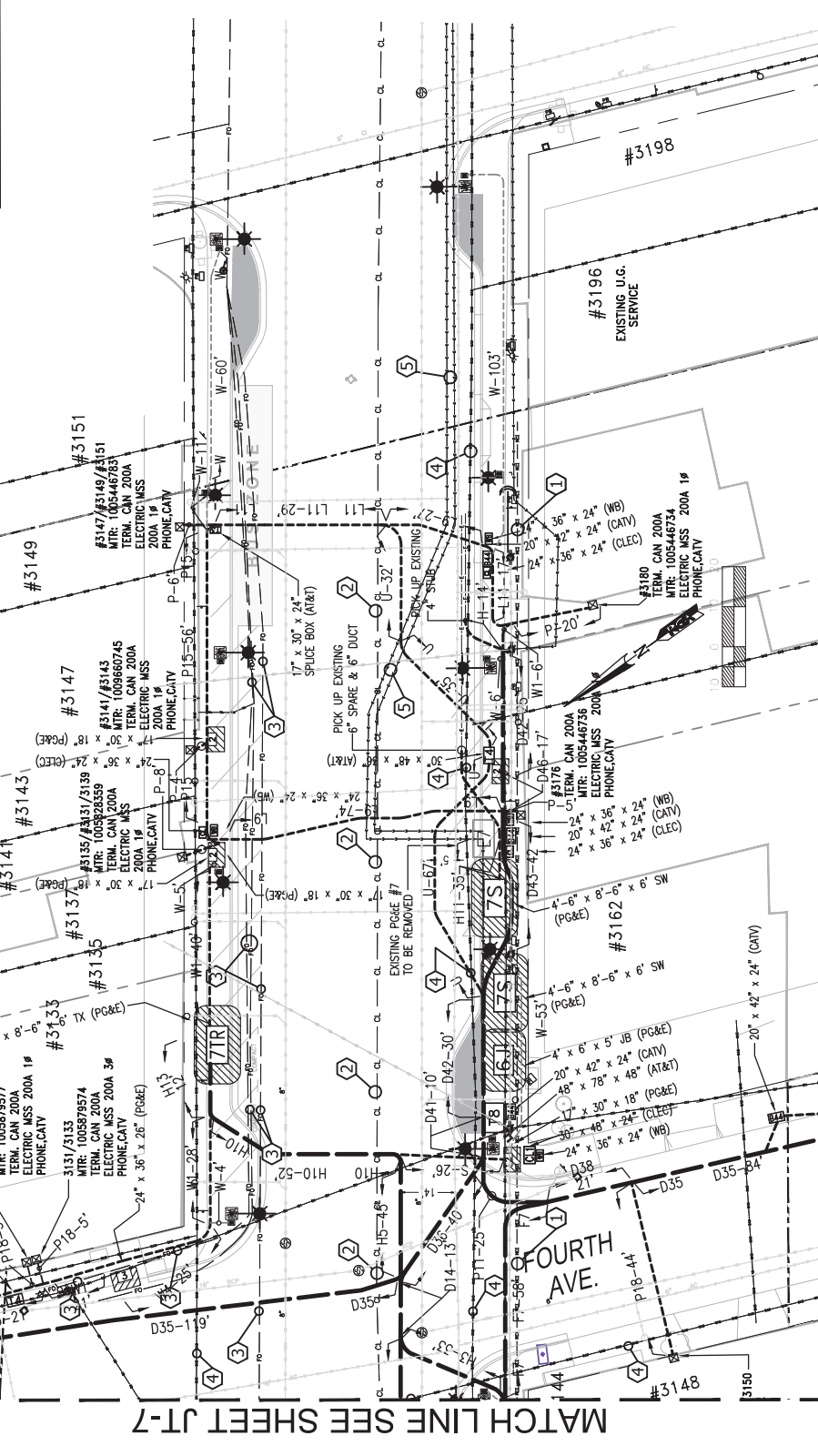
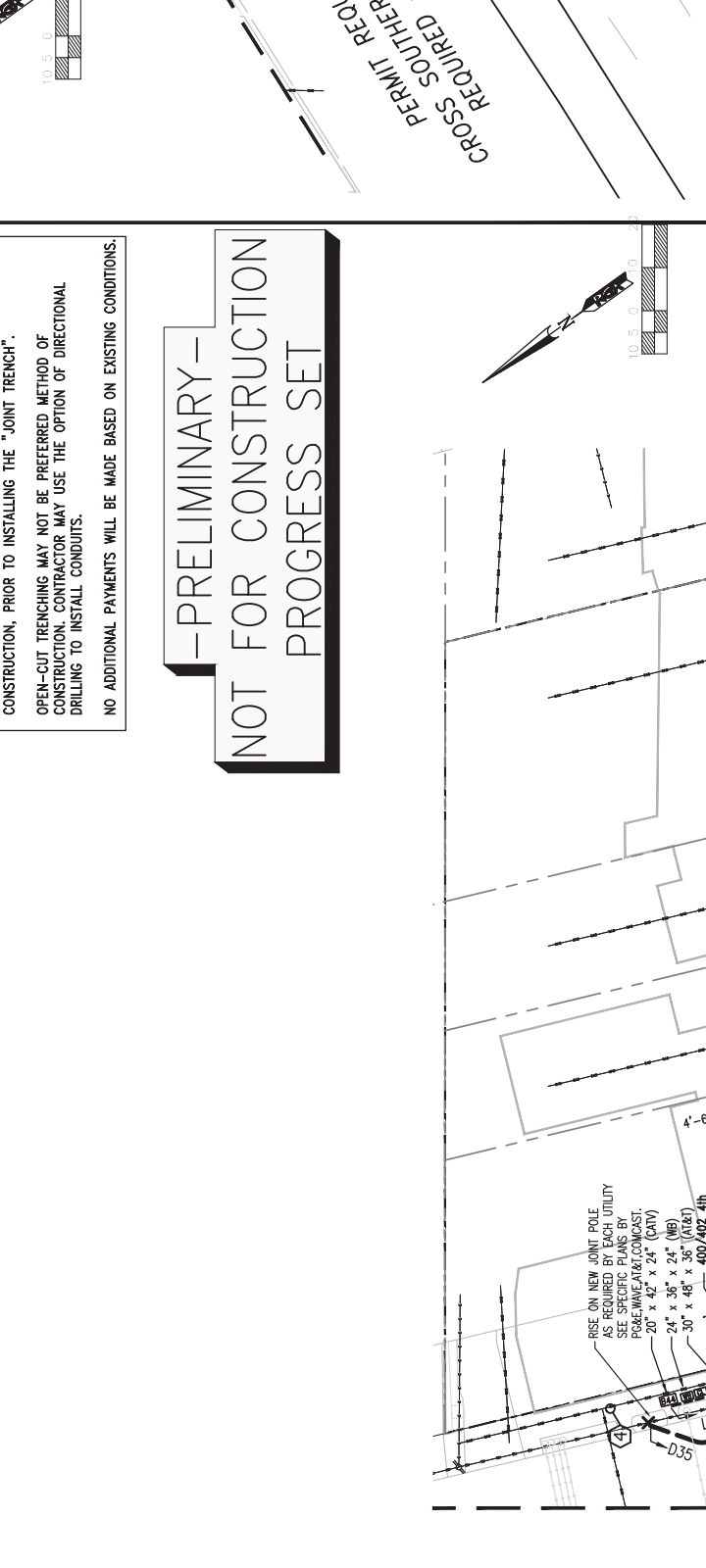
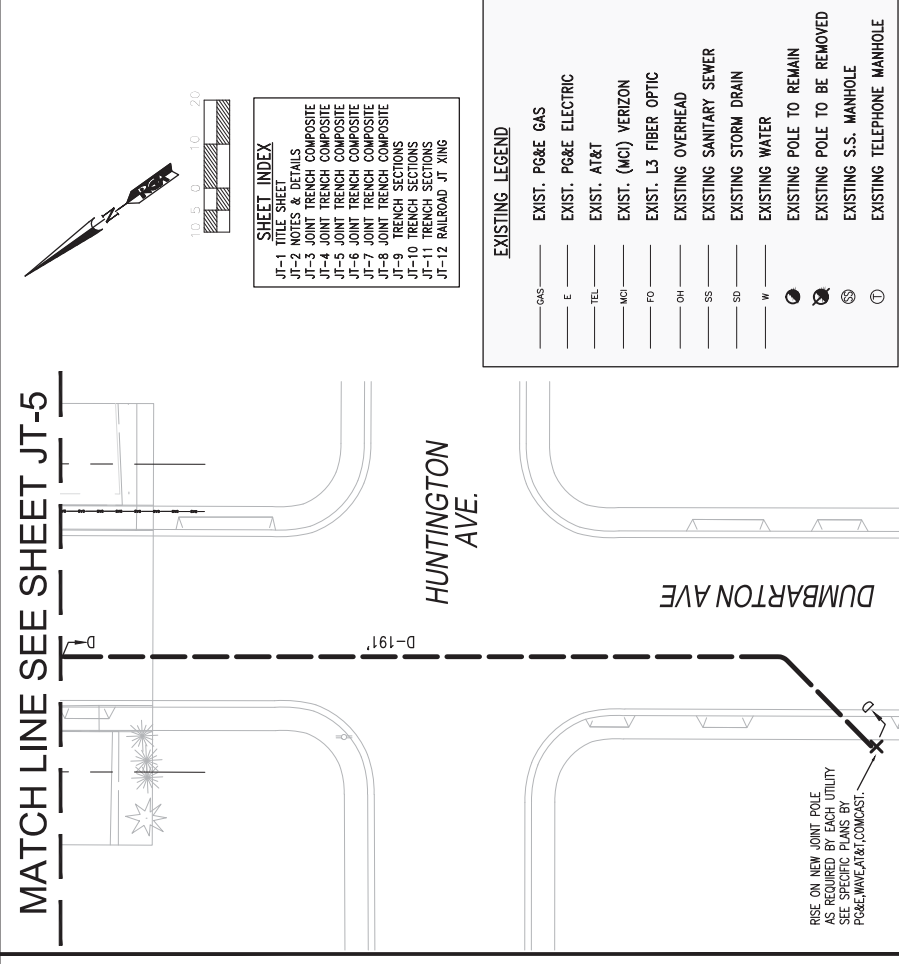
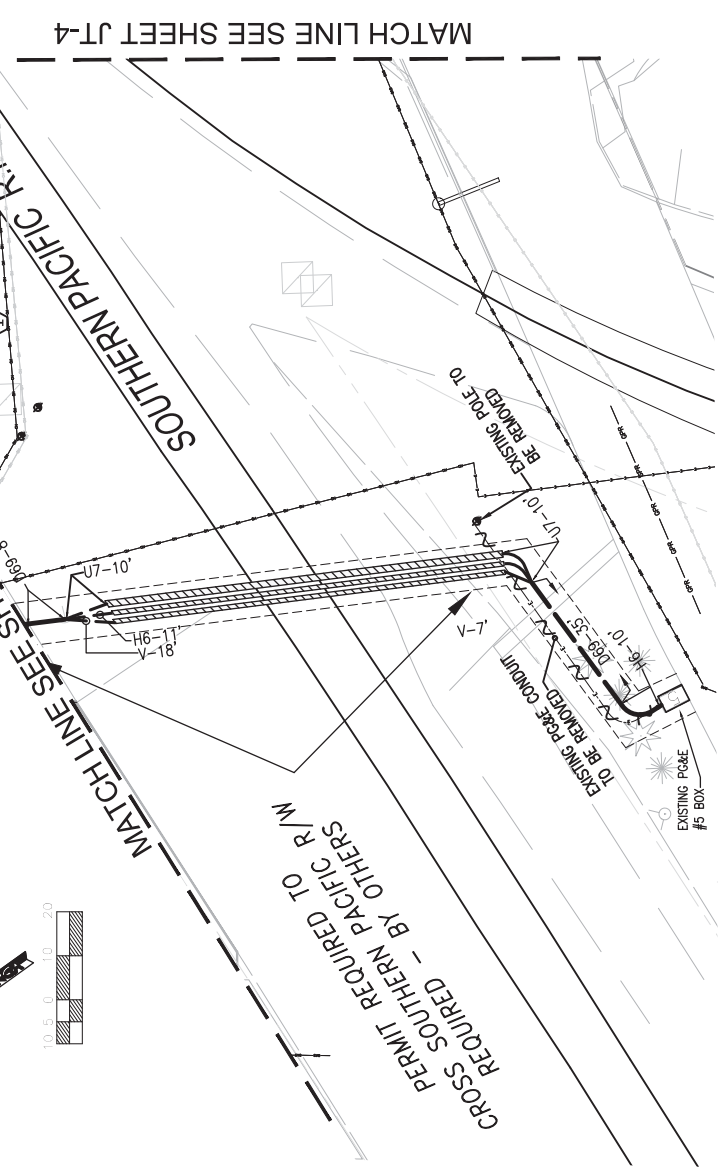


APPROVED: _____
DATE: _____
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
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EXISTING LEGEND

	EXIST. PG&E GAS
	EXIST. PG&E ELECTRIC
	EXIST. AT&T
	EXIST. (MCI) VERIZON
	EXIST. L3 FIBER OPTIC
	EXISTING OVERHEAD
	EXISTING SANITARY SEWER
	EXISTING STORM DRAIN
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	EXISTING S.S. MANHOLE
	EXISTING TELEPHONE MANHOLE

SHEET INDEX

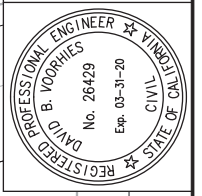
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DESIGNED BY: M.W.
CHECKED BY: D.V.
DRAWN BY: M.W.
DATE: 04-23-2018
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ORIGINAL SCALE IS IN INCHES

MIDDLEFIELD ROAD
UNDERGROUND UTILITY DISTRICT (PHASE II)
JOINT TRENCH COMPOSITE
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY
C. Nguyen
RGA PROJECT MANAGER



RGADesign LLC
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6400 VILLAGE PARKWAY, SUITE 204 DUBLIN, CA 94568
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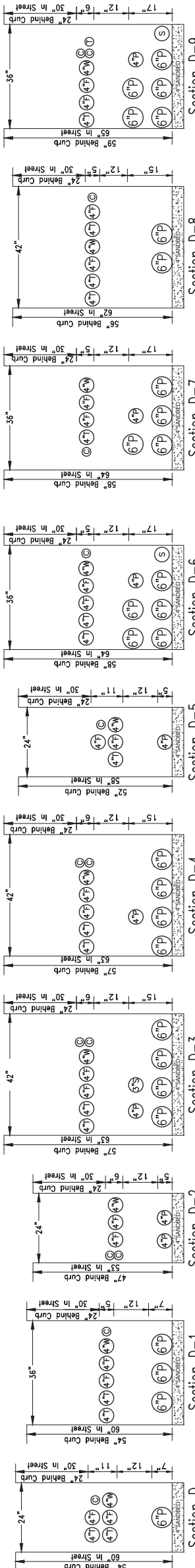
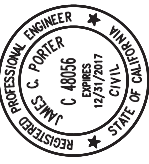


SCALE: 1"=20'
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JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
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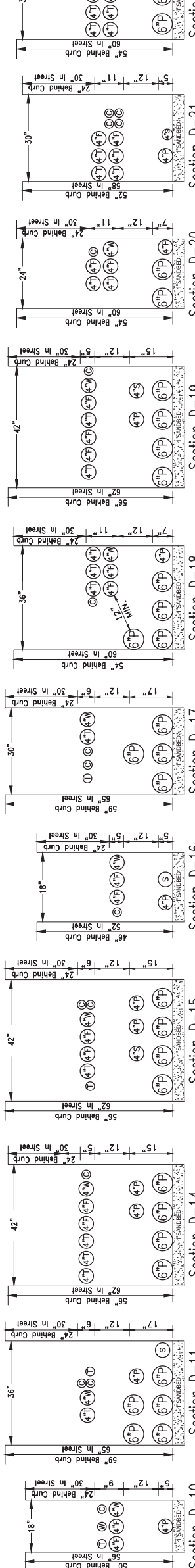
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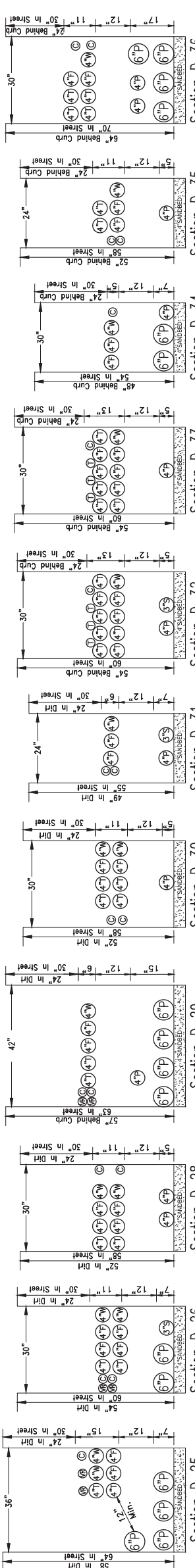
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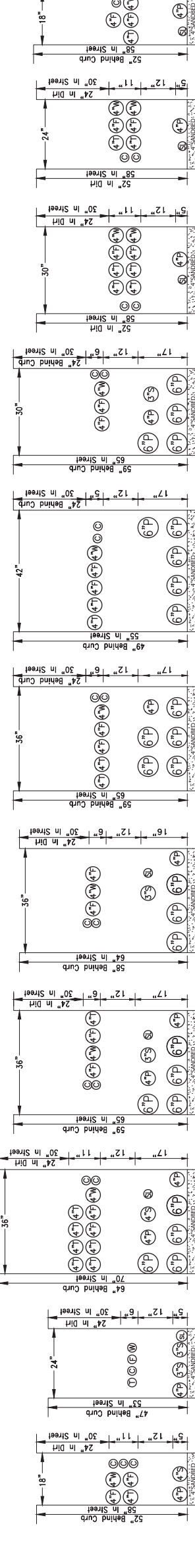
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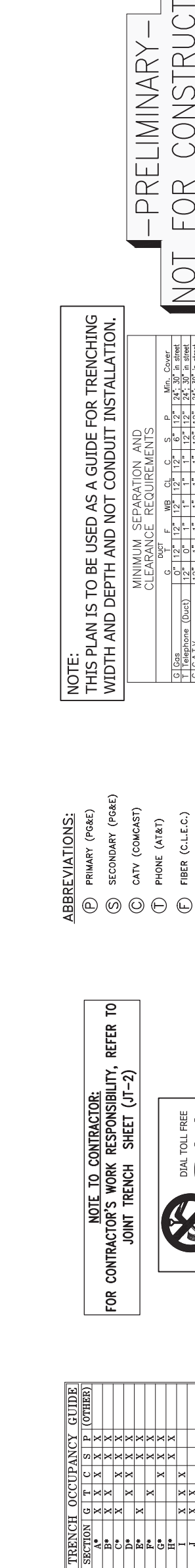
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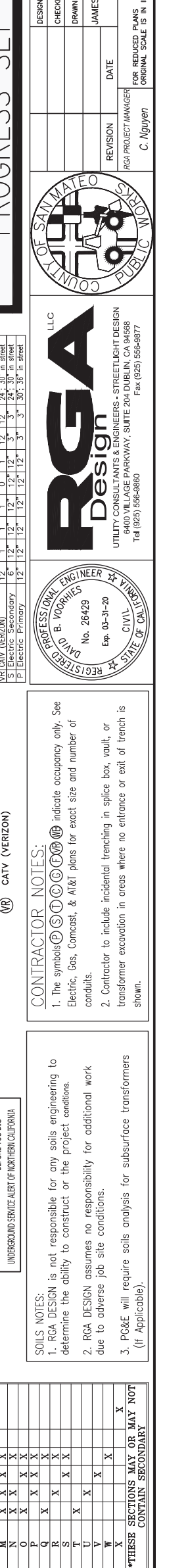
Section D-21 Section D-22 Section D-23 Section D-24 Section D-25 Section D-26 Section D-27 Section D-28 Section D-29 Section D-30



Section D-31 Section D-32 Section D-33 Section D-34 Section D-35 Section D-36 Section D-37 Section D-38 Section D-39 Section D-40



Section D-41 Section D-42 Section D-43 Section D-44 Section D-45 Section D-46 Section D-47 Section D-48 Section D-49 Section D-50



Section D-51 Section D-52 Section D-53 Section D-54 Section D-55 Section D-56 Section D-57 Section D-58 Section D-59 Section D-60

TRENCH OCCUPANCY GUIDE

SECTION	G	T	C	S	P	(OTHER)
A*	X	X	X	X	X	X
B*	X	X	X	X	X	X
C*	X	X	X	X	X	X
D*	X	X	X	X	X	X
E*	X	X	X	X	X	X
F*	X	X	X	X	X	X
G*	X	X	X	X	X	X
H*	X	X	X	X	X	X
I*	X	X	X	X	X	X
J*	X	X	X	X	X	X
K*	X	X	X	X	X	X
L*	X	X	X	X	X	X
M*	X	X	X	X	X	X
N*	X	X	X	X	X	X
O*	X	X	X	X	X	X
P*	X	X	X	X	X	X
Q*	X	X	X	X	X	X
R*	X	X	X	X	X	X
S*	X	X	X	X	X	X
T*	X	X	X	X	X	X
U*	X	X	X	X	X	X
V*	X	X	X	X	X	X
W*	X	X	X	X	X	X
X*	X	X	X	X	X	X

*THESE SECTIONS MAY OR MAY NOT CONTAIN SECONDARY

NOTE TO CONTRACTOR:
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SOILS NOTES:
1. RCA DESIGN is not responsible for any soils engineering to determine the ability to construct or the project conditions.
2. RCA DESIGN assumes no responsibility for additional work due to adverse job site conditions.
3. PG&E will require soils analysis for subsurface transformers (if Applicable).

ABBREVIATIONS:
 (P) PRIMARY (PG&E)
 (S) SECONDARY (PG&E)
 (C) CATV (COMCAST)
 (T) PHONE (AT&T)
 (F) FIBER (C-L.E.C.)
 (WB) CATV (WAVE BROADBAND)
 (VR) CATV (VERIZON)

NOTE:
THIS PLAN IS TO BE USED AS A GUIDE FOR TRENCHING WIDTH AND DEPTH AND NOT CONDUIT INSTALLATION.

MINIMUM SEPARATION AND CLEARANCE REQUIREMENTS

DUCT	G	F	MB	CI	C	S	P	Min. Cover
G Gas	0"	12"	12"	12"	6"	12"	24"	30" in street
T Telephone (Duct)	12"	0"	1"	1"	1"	12"	24"	30" in street
C C.A.T.V.	12"	1"	1"	1"	1"	12"	24"	30" in street
F Fiber (CLEO)	12"	1"	1"	1"	1"	12"	24"	30" in street
WB CATV (WAVE)	12"	1"	1"	1"	1"	12"	24"	30" in street
VR CATV (VERIZON)	12"	1"	1"	1"	1"	12"	24"	30" in street
P Electric Primary	6"	12"	12"	12"	12"	3"	30"	30" in street

**-PRELIMINARY-
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CONTRACTOR NOTES:
1. The symbols (S), (T), (C), (F), (WB), (VR) indicate occupancy only. See Electric, Gas, Comcast, & AT&T plans for exact size and number of conduits.
2. Contractor to include incidental trenching in splice box, vault, or transformer excavation in areas where no entrance or exit of trench is shown.

REGA Design LLC
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CHECKED BY: D.V.
DRAWN BY: M.W.

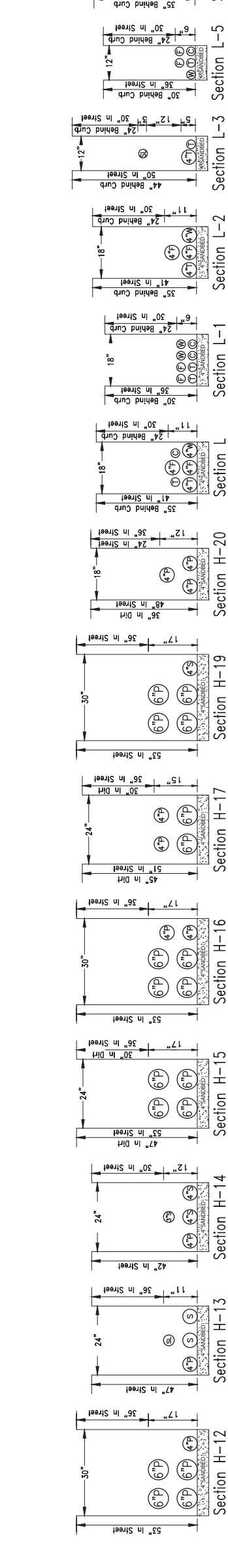
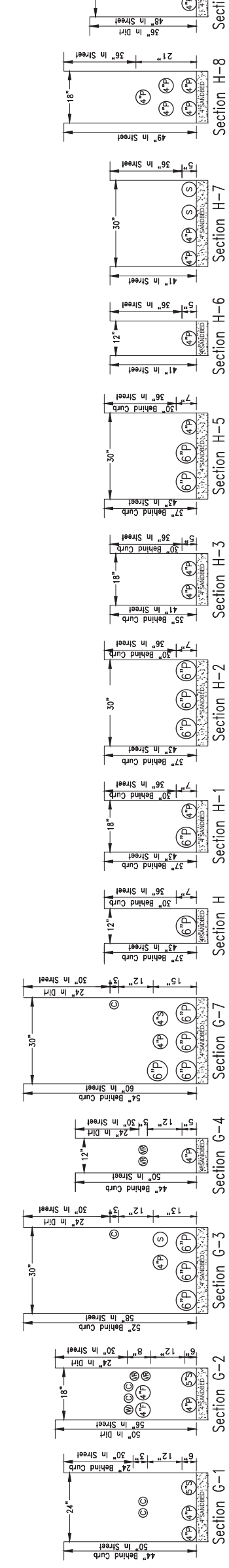
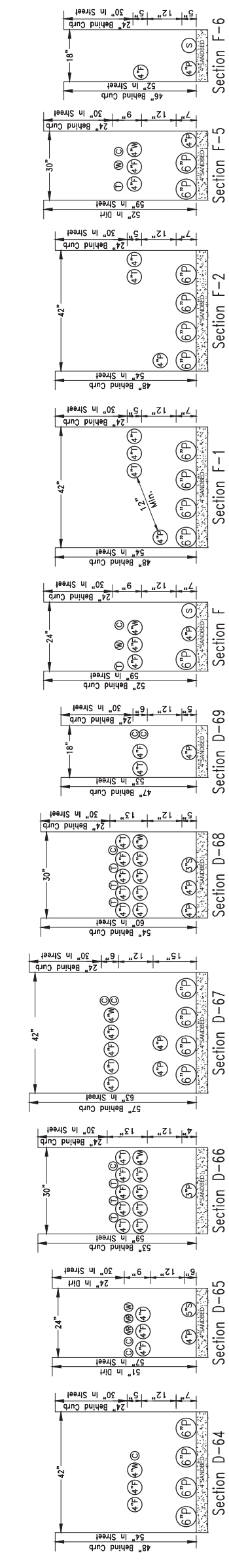
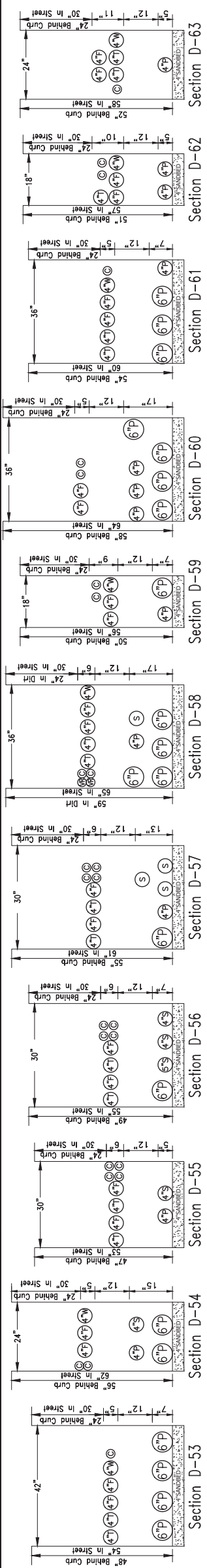
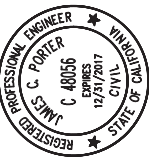
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
SAN MATEO COUNTY
555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

DATE: 04-23-2018
FILE NO.: 15-646
SCALE: N.T.S.

MIDDLEFIELD ROAD
UNDERGROUND UTILITY DISTRICT (PHASE II)
JOINT TRENCH COMPOSITE

FOR REDUCED PLANS WORKED ON: 0 1 2 3 4
RGA PROJECT MANAGER: C. Nguyen
RGA DATE LAST WORKED ON: 04-23-2018
SHEET 9 OF 12

APPROVED: _____
 DATE: _____
 JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 R. C. # 48056 / EXPIRES 12-31-2017



TRENCH OCCUPANCY GUIDE	
SECTION	(OTHER)
A*	X
B*	X
C*	X
D*	X
E*	X
F*	X
G*	X
H*	X
I	X
J	X
K	X
L	X
M	X
N	X
O	X
P	X
Q	X
R	X
S	X
T	X
U	X
V	X
W	X
X	X
Y	X
Z	X

NOTE TO CONTRACTOR:
FOR CONTRACTOR'S WORK RESPONSIBILITY, REFER TO JOINT TRENCH SHEET (JT-2)

NOTE:
 THIS PLAN IS TO BE USED AS A GUIDE FOR TRENCHING WIDTH AND DEPTH AND NOT CONDUIT INSTALLATION.

CONTRACTOR NOTES:
 1. The symbols (P, S, C, T, F, MB, WB, MR) indicate occupancy only. See Electric, Gas, Comcast, & AT&T plans for exact size and number of conduits.
 2. This plan is to be used as a guide for trenching width and depth and not conduit installation.
 3. Contractor to include incidental trenching in splice box, vault, or transformer excavation in areas where no entrance or exit of trench is shown.

MINIMUM SEPARATION AND CLEARANCE REQUIREMENTS	
DUCT	MIN. COVER
G Gas	12"
T Telephone (Duct)	12"
C C.A.T.V.	12"
F Fiber (GLO)	12"
MB CATV (WAVE)	12"
WB (GENERAL LINE)	12"
P Electric Primary	12"

THIS IS NOT A BID DOCUMENT
 THIS DRAWING HAS NOT YET BEEN REVIEWED BY UTILITY COMPANIES AND IS SUBJECT TO CHANGE.

PRELIMINARY - NOT FOR CONSTRUCTION - PROGRESS SET

ABBREVIATIONS:
 (P) PRIMARY (PG&E)
 (S) SECONDARY (PG&E)
 (C) CATV (COMCAST)
 (T) PHONE (AT&T)
 (F) FIBER (C.L.L.C.)
 (MB) CATV (WAVE BROADBAND)
 (MR) CATV (VERIZON)

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 JT-2 NOTES & DETAILS
 JT-3 JOINT TRENCH COMPOSITE
 JT-4 JOINT TRENCH COMPOSITE
 JT-5 JOINT TRENCH COMPOSITE
 JT-6 JOINT TRENCH COMPOSITE
 JT-7 JOINT TRENCH COMPOSITE
 JT-8 JOINT TRENCH COMPOSITE
 JT-9 TRENCH SECTIONS
 JT-10 TRENCH SECTIONS
 JT-11 RAILROAD JT RING

DESIGNED BY: M.W.
CHECKED BY: D.V.
DRAWN BY: M.W.

SCALE: N.T.S.
DATE: 04-23-2018
FILE NO.: 15-646

**UNDERGROUND UTILITY DISTRICT (PHASE II)
 JOINT TRENCH COMPOSITE**

555 COUNTY CENTER, 5TH FLOOR
 REDWOOD CITY, CALIFORNIA 94063

FOR REDUCED PLANS WORKED ON:
 ORIGINAL SCALE IS IN INCHES

0 1 2 3 4
 FOR PROJECT MANAGER
 C. Nguyen

REGD. DATE LAST WORKED ON: 04-23-2018
 JT-10
 SHEET 10 OF 12



REGA Design LLC
 UTILITY CONSULTANTS & ENGINEERS - STREETLIGHT DESIGN
 6400 VILLAGE PARKWAY, SUITE 204 DUBLIN, CA 94568
 Tel (925) 556-9880 Fax (925) 556-9877

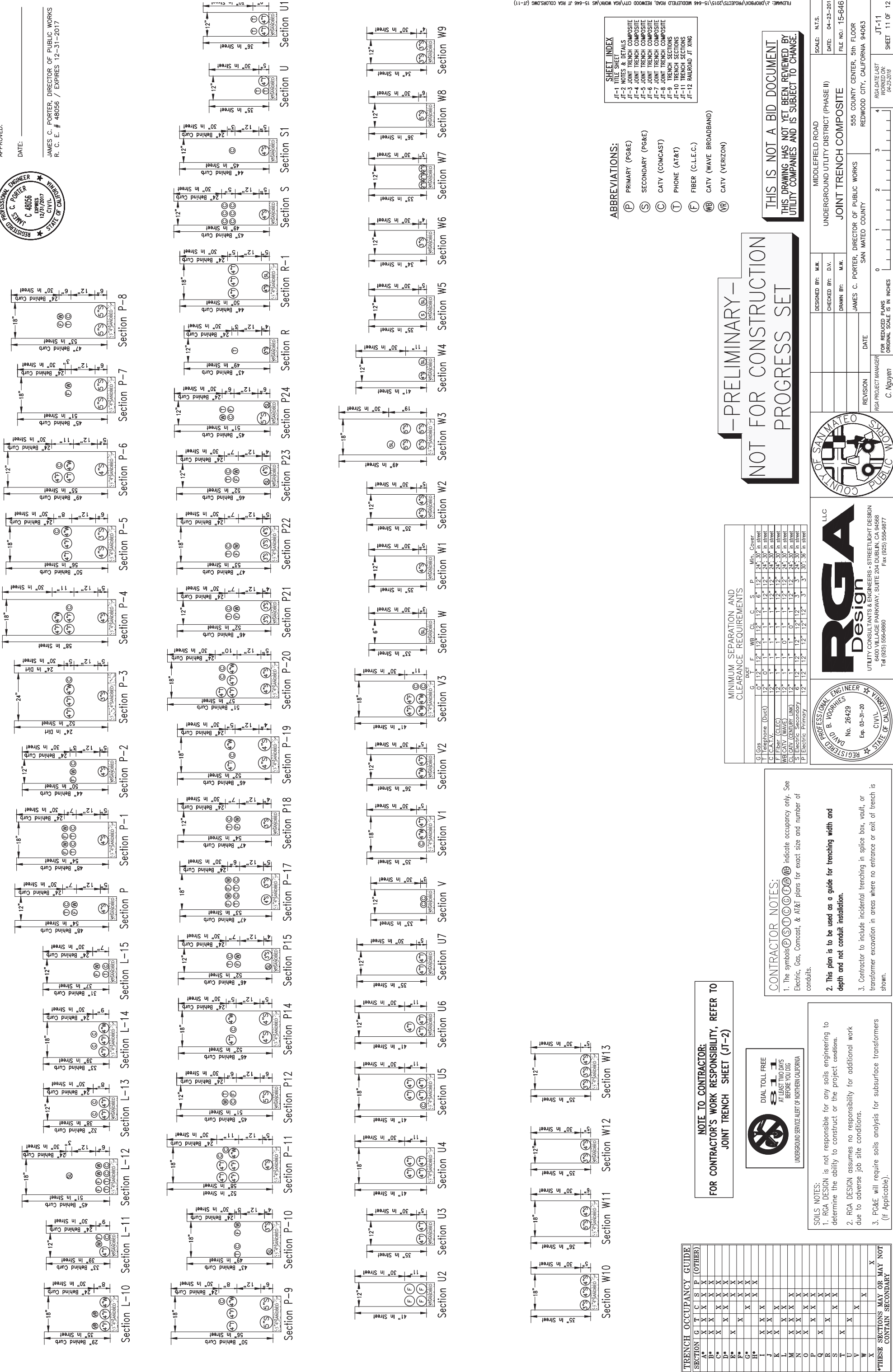
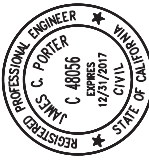
DAVID B. VOORHIES
 No. 26429
 Exp. 03-31-20
 REGISTERED PROFESSIONAL ENGINEER - CIVIL
 STATE OF CALIFORNIA

SOILS NOTES:
 1. RGA DESIGN is not responsible for any soils engineering to determine the ability to construct or the project conditions.
 2. RGA DESIGN assumes no responsibility for additional work due to adverse job site conditions.
 3. PG&E will require soils analysis for subsurface transformers (if Applicable).

APPROVED:

DATE:

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2017



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 JT-7 JOINT TRENCH COMPOSITE
 JT-8 JOINT TRENCH COMPOSITE
 JT-9 TRENCH SECTIONS
 JT-10 TRENCH SECTIONS
 JT-11 TRENCH SECTIONS
 JT-12 RAILROAD JT WING

ABBREVIATIONS:

- (P) PRIMARY (PG&E)
- (S) SECONDARY (PG&E)
- (C) CATV (COMCAST)
- (L) PHONE (AT&T)
- (F) FIBER (C.L.E.C.)
- (WB) CATV (WAVE BROADBAND)
- (VR) CATV (VERIZON)

THIS IS NOT A BID DOCUMENT
THIS DRAWING HAS NOT YET BEEN REVIEWED BY
UTILITY COMPANIES AND IS SUBJECT TO CHANGE.

-PRELIMINARY-
NOT FOR CONSTRUCTION
PROGRESS SET

MINIMUM SEPARATION AND CLEARANCE REQUIREMENTS

DUCT	G	F	WB	CL	C	S	P	Min. Cover
Gas	12"	12"	12"	12"	12"	12"	12"	24" in Street
Telephone (Duct)	12"	6"	12"	12"	12"	12"	12"	24" in Street
C.C.A.T.V.	12"	12"	12"	12"	12"	12"	12"	24" in Street
F. Fiber (OLE)	12"	12"	12"	12"	12"	12"	12"	24" in Street
WB CATV (WAVE)	12"	12"	12"	12"	12"	12"	12"	24" in Street
CL CATV (CENTURY LINK)	12"	12"	12"	12"	12"	12"	12"	24" in Street
S. Electric Secondary	6"	12"	12"	12"	12"	12"	12"	3" - 24" in Street
P. Electric Primary	12"	12"	12"	12"	12"	12"	12"	3" - 30" - 36" in Street

- CONTRACTOR NOTES:**
- The symbols (P), (S), (C), (L), (F), (WB), (VR) indicate occupancy only. See Electric, Gas, Comcast, & AT&T plans for exact size and number of conduits.
 - This plan is to be used as a guide for trenching width and depth and not conduit installation.
 - Contractor to include incidental trenching in splice box, vault, or transformer excavation in areas where no entrance or exit of trench is shown.

NOTE TO CONTRACTOR:
FOR CONTRACTOR'S WORK RESPONSIBILITY, REFER TO
JOINT TRENCH SHEET (JT-2)



SOILS NOTES:

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- PG&E will require soils analysis for subsurface transformers (if Applicable).

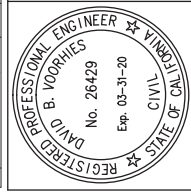
TRENCH OCCUPANCY GUIDE

SECTION	G	T	C	S	P	(OTHER)
A*	X	X	X	X	X	X
B*	X	X	X	X	X	X
C*	X	X	X	X	X	X
D*	X	X	X	X	X	X
E*	X	X	X	X	X	X
F*	X	X	X	X	X	X
G*	X	X	X	X	X	X
H*	X	X	X	X	X	X
I	X	X	X	X	X	X
J	X	X	X	X	X	X
K	X	X	X	X	X	X
L	X	X	X	X	X	X
M	X	X	X	X	X	X
N	X	X	X	X	X	X
O	X	X	X	X	X	X
P	X	X	X	X	X	X
Q	X	X	X	X	X	X
R	X	X	X	X	X	X
S	X	X	X	X	X	X
T	X	X	X	X	X	X
U	X	X	X	X	X	X
V	X	X	X	X	X	X
W	X	X	X	X	X	X
X	X	X	X	X	X	X

***THESE SECTIONS MAY OR MAY NOT CONTAIN SECONDARY**



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 UTILITY CONSULTANTS & ENGINEERS - STREETLIGHT DESIGN
 6400 VILLAGE PARKWAY, SUITE 204 DUBLIN, CA 94568
 Tel (925) 556-9880 Fax (925) 556-9877



DESIGNED BY: M.W.
 CHECKED BY: D.V.
 DRAWN BY: M.W.

MIDDLEFIELD ROAD
 UNDERGROUND UTILITY DISTRICT (PHASE II)
 JOINT TRENCH COMPOSITE

555 COUNTY CENTER, 5TH FLOOR
 REDWOOD CITY, CALIFORNIA 94063

JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
 SAN MATEO COUNTY

DATE
 REVISION

FOR REDUCED PLANS
 ORIGINAL SCALE IS IN INCHES

C. Nguyen
 RGA PROJECT MANAGER

PG&E PRIMARY

Utility Line Crossing Lines and Cables Carrying More Than 750 Volts

- A minimum depth of 4.5 feet below the base of rail (BBR) to the top of the facility will be maintained.
- A minimum depth of 4.5 feet below natural grade (BNG) to the top of the facility will be maintained.
- The wireline must be encased completely across the railroad right of way with a rigid metallic conduit or non-metallic conduit (PVC) encased in a minimum of 3 inches of concrete.
- A 6-inch wide warning tape will be installed 1-foot BNG directly over the underground power line where located on railroad right of way outside the track bed at least sections. No warning tape is required above directional boring.
- Crossings shall not be installed under or within 50 feet from the end of any railroad bridge, centerline of any culvert or switch area.
- A Railroad signal representative must be present during installation if railroad signals are in the vicinity of wireline crossing unless signal representative authorizes otherwise.

PG&E SECONDARY & COMMUNICATIONS

Utility Line Crossing Lines Carrying 750 Volts Or Less; Power, Television, Telephone, and Fiber Optic Lines and Cables

There are two types of clearances, overhead and underground. The purpose of the clearances is to allow a safe operating system without interfering with other facilities.

- Above-ground facilities should be located as far as possible from automobile or pedestrian crossings or constructed in such manner to allow automobile or pedestrian traffic adequate sight lines to see approaching trains.
- If space permits, the above-ground facilities should be located in such a way as to allow for additional future tracks.

Although railroads do strive to keep derailments to a minimum, they do happen. If a derailment occurs, it is imperative that any underground facilities are located outside of light curves, inside of bridges, and near the end of the railroad and the public classification yards. Locating facilities at or near these locations should be avoided if possible.

All crossings should cross as near perpendicular to the track as possible but not less than at a 60 degree angle.

All wireline facility installations shall comply with the current published issue of the American National Standards Institute's (ANSI's) National Electrical Safety Code (NESC) and local governing authority.

- A minimum depth of 4.5 feet below the base of rail (BBR) will be maintained except that a minimum of 5 feet BBR will be maintained for fiber optic cable wirelines.
- A minimum of 3.0 feet below natural grade (BNG) will be maintained except for fiber optic cable wirelines.
- Casing must extend a minimum of 30 feet out from the centerline of the nearest track, when measured at right angles. The casing material shall be steel or rigid metal conduit (no PVC) for typical buried depths. PVC will be used for shallow depths.
- Horizontal directional drilling is not an approved method of installation unless the burial depth is at least 15 feet, the conduit/casing size is six inches or less, and the Interim Guidelines for Horizontal Directional Drilling Under Union Pacific Railroad Right of Way are followed. The interim guidelines were distributed by the Office of AVP Engineering Design on May 27, 2005.
- Crossings shall not be installed under or within 50 feet from the end of any railroad bridge, centerline of any culvert or switch area.
- A Railroad signal representative must be present during installation if railroad signals are in the vicinity of wireline

INTERIM GUIDELINES FOR HORIZONTAL DIRECTIONAL DRILLING (HDD) UNDER UNION PACIFIC RAILROAD RIGHT-OF-WAY

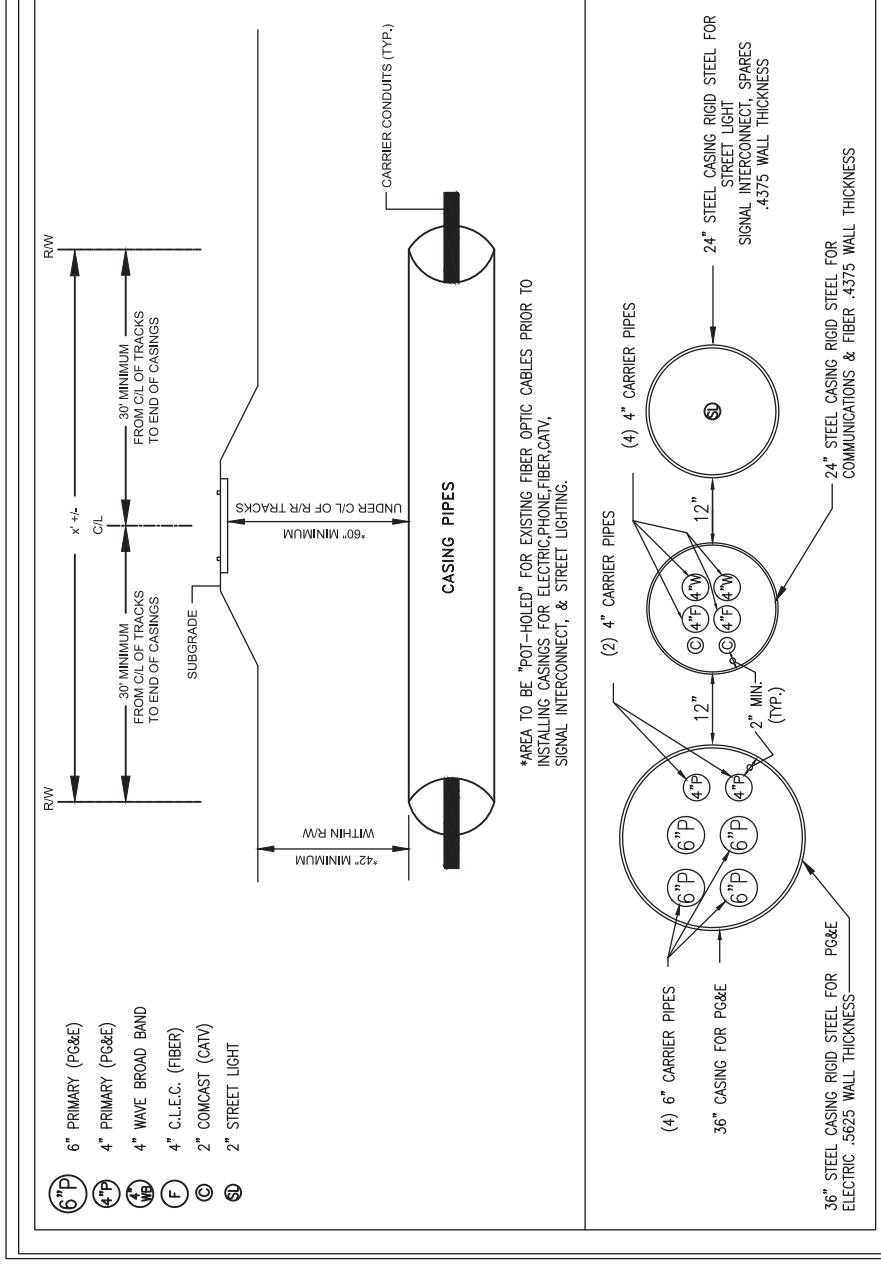
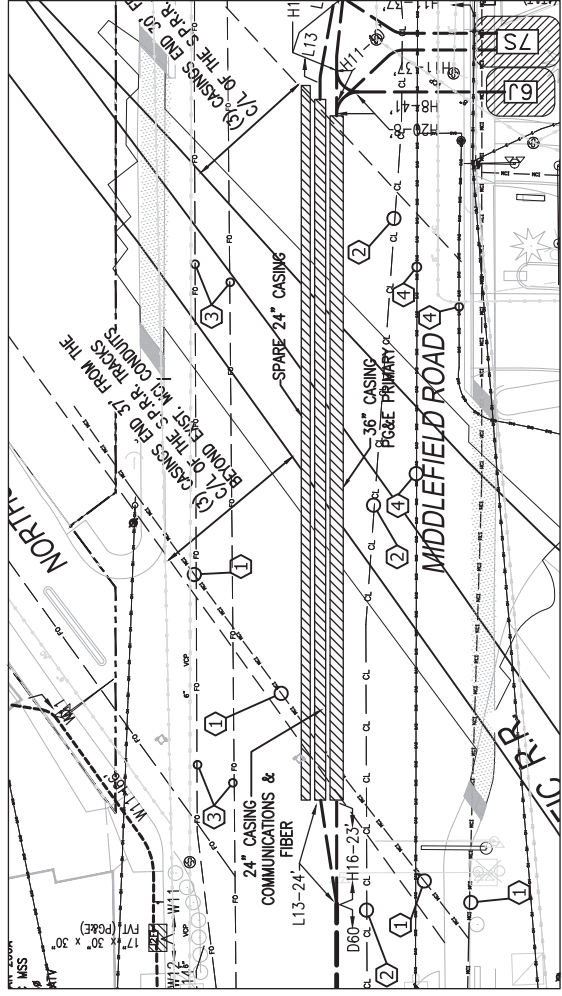
Preface: The American Railway Engineering and Maintenance-of-Way Association (AREMA) has assigned a working committee to develop a recommended railroad industry practice for horizontal directional drilling (HDD) under railroad rights-of-way. These interim guidelines are issued by the Union Pacific Railroad (UPRR) pending completion of the AREMA recommended practice, at which time UPRR will review and determine whether to adopt it.

Scope: All guidelines proposed for installation under UPRR rights-of-way and trackage using HDD. Fiber optic installation under the jurisdiction of the UPRR Information Technologies (IT) Department with 10 inch or smaller diameter casing pipe shall follow the guidelines outlined in the current version of the "Fiber Optic Engineering, Construction and Maintenance" Standard Manual.

- For all liquid or gas pipelines, only steel pipe may be installed under tracks or UPRR right-of-way utilizing HDD. The pipe may be used as a carrier pipe or a casing pipe. Plastic carrier pipe, if used, must be installed in a steel casing.
- For fiber optics (not under the jurisdiction of UPRR IT Department) or electrical installations, plastic (PVC or HDPE) pipe may be used as a conduit.
- For all liquid or gas installations or for nominal pipe sizes exceeding 6 in., minimum cover (measured from base of rail to top of pipe) shall be 25 ft, regardless of product. For fiber optics or electrical installations, with casing/conduit nominal size of 6 in. or less, minimum cover shall be 15 ft. Applicant submit shall include actual planned depth of pipe under each railroad track.
- Applicant must provide pipe specifications. Pipe must satisfy AREMA recommendations and all applicable government and industry regulations.
- Applicant must provide qualifications of drilling contractor including specific instances of previous successful experience in drilling under sensitive surface facilities.

- Prior to commencement of drilling:
 - The contractor must submit an Installation Plan that describes the anticipated fit capacity, the anticipated depth and exact location of the exit ditch, the pilot hole diameter, the proposed reaming plan, including the number and diameter of pre-reams/back-reams and diameter of the final reamed borehole, and the contingency equipment and plans for dealing with soil conditions that a soil engineer could reasonably expect to be encountered at the proposed HDD installation site. The Installation Plan will also address the anticipated hours of operation during the HDD borehole drilling and installation process, the minimum number of personnel, and their responsibilities on-duty and on-site during all HDD drilling operations.
 - The contractor must submit a Logbook detailing the drilling process, including method of monitoring and capturing the real-time data with particular attention to prevention of inadvertent escape of drilling fluids where they could undermine the Railroad tracks.
 - Establish a Survey Grid Line and provide a program of monitoring and documenting the actual location of the borehole during drilling operations.

- A railroad observer and an applicant inspector are required to monitor the ground, ballast, and track for movement during the drilling, reaming, and pullback processes. All work within the Railroad right-of-way must be coordinated with the Railroad flagger. The Installation Plan must be approved by the Railroad and immediately reported subject to Railroad review and approval. The installation process must be reviewed and modified as required before the installation may proceed. Applicant must pay Railroad's expenses for review, observation of installation, and flagging.
- Upon completion of the HDD installation work, the contractor shall provide an accurate as-built drawing of the installed HDD segment. As-built drawings will include both horizontal and profile plans.



**-PRELIMINARY-
NOT FOR CONSTRUCTION
PROGRESS SET**

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JT-11	TRENCH SECTIONS
JT-12	RAILROAD JT XING

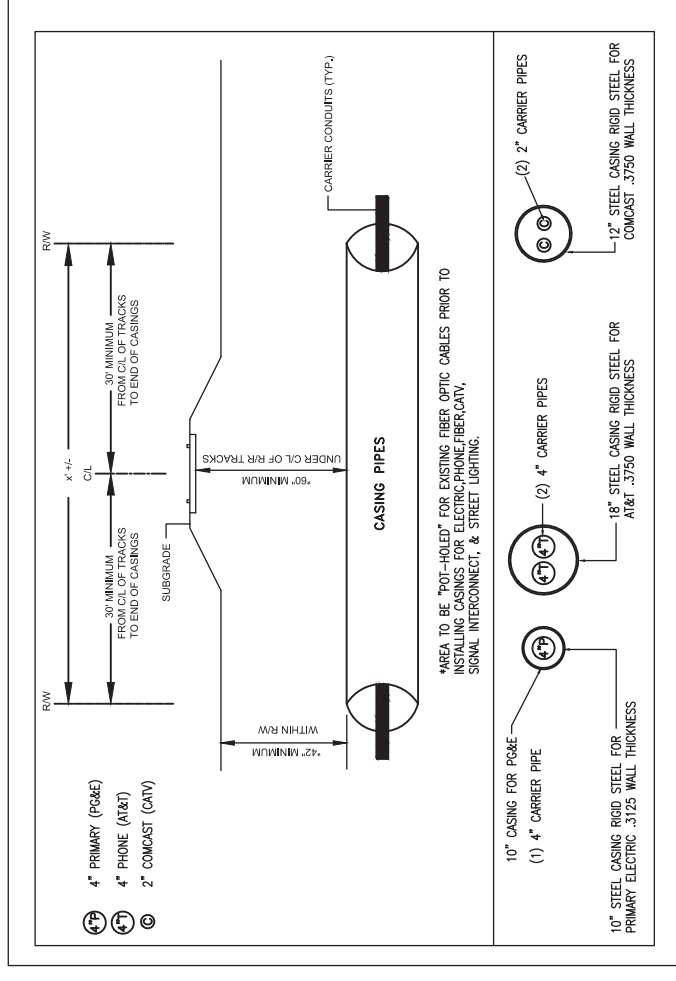
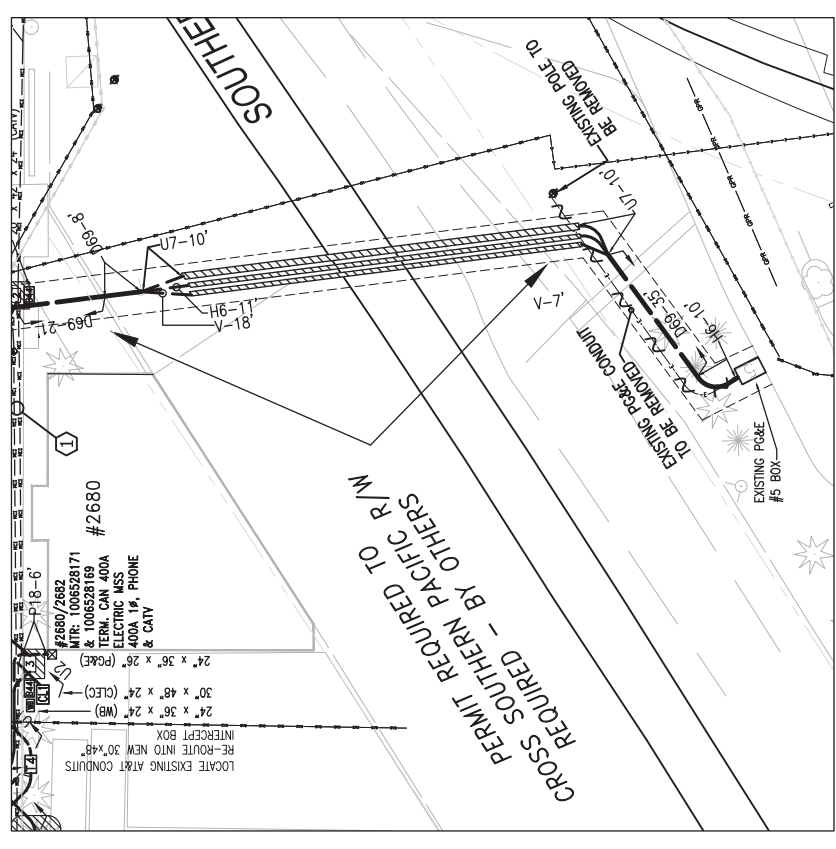
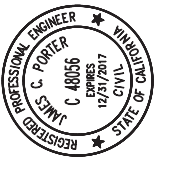
RECORD DRAWING
THIS DRAWING INDICATES IMPROVEMENTS AS DESIGNED AND REVISED BY RGA DESIGN TO HAVE OCCURRED DURING CONSTRUCTION. REPRESENTATIONS OF INSPECTORS AND CONTRACTORS.
BY: _____ DATE: _____

* CASING PIPE MUST BE PLACED A MINIMUM OF 2' BELOW EXISTING FIBER OPTIC CABLE. ANY EXCAVATION REQUIRED WITHIN 5' OF EXISTING FIBER OPTIC CABLE MUST BE HAND DUG. FIBER OPTIC LOCATION WILL BE MARKED BY S.P. COMMUNICATIONS AND AREAS WILL BE "POT-HOLED" PRIOR TO THE START OF WORK WITHIN PACIFIC OF WAY. NOTIFY SOUTHERN PACIFIC COMMUNICATIONS PRIOR TO INSTALLING CASING BORE 1-510-755-5515

REGISTERED PROFESSIONAL ENGINEER
DAVID B. VOORHIES
No. 26429
Exp. 03-31-20
CIVIL T. VINYARD
STATE OF CALIFORNIA

REGA Design
LLC
UTILITY CONSULTANTS & ENGINEERS - STREETLIGHT DESIGN
6400 VILLAGE PARKWAY, SUITE 204 DUBLIN, CA 94568
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APPROVED: _____
DATE: _____
JAMES C. PORTER, DIRECTOR OF PUBLIC WORKS
R. C. E. # 48056 / EXPIRES 12-31-2017



MIDDLEFIELD ROAD
UNDERGROUND UTILITY DISTRICT (PHASE II)
JOINT TRENCH COMPOSITE

DESIGNED BY: M.W.
CHECKED BY: D.W.
DRAWN BY: M.W.

DATE: _____
FOR REDUCED PLANS WORKED ON: 04-23-2018
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ORIGINAL SCALE IS IN INCHES: 0 1 2 3 4

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555 COUNTY CENTER, 5TH FLOOR
REDWOOD CITY, CALIFORNIA 94063

RR-1
SHEET 12 OF 12