

MALLOY VILLAGE PUD 2

PHASE 1 STREET & UTILITY IMPROVEMENTS

FERNDALE, WA

OWNER APPLICANT
MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501
CONTACT: TIM CAREY
(310)-787-8569

ENGINEER
BENNETT ENGINEERING, LLC.
2324 JAMES STREET
BELLINGHAM, WA 98225
CONTACT: TOM BENNETT, P.E.
(360) 671-2600

SURVEYOR
LARRY STEELE & ASSOCIATES
1334 KING STREET, SUITE 1
BELLINGHAM, WA 98229
CONTACT: LARRY STEELE, P.L.S.
(360) 676-9350

WETLANDS BIOLOGIST
NORTHWEST ECOLOGICAL SERVICES
2801 MERIDIAN STREET, SUITE 202
BELLINGHAM, WA 98225
CONTACT: VIKKI JACKSON
(360)-734-9484

GEOTECHNICAL ENGINEER
GEOTEST SERVICES, INC.
741 MARINE DRIVE
BELLINGHAM, WA 98225
CONTACT: GRANT RICHARDSON
PHONE: 360-733-7318

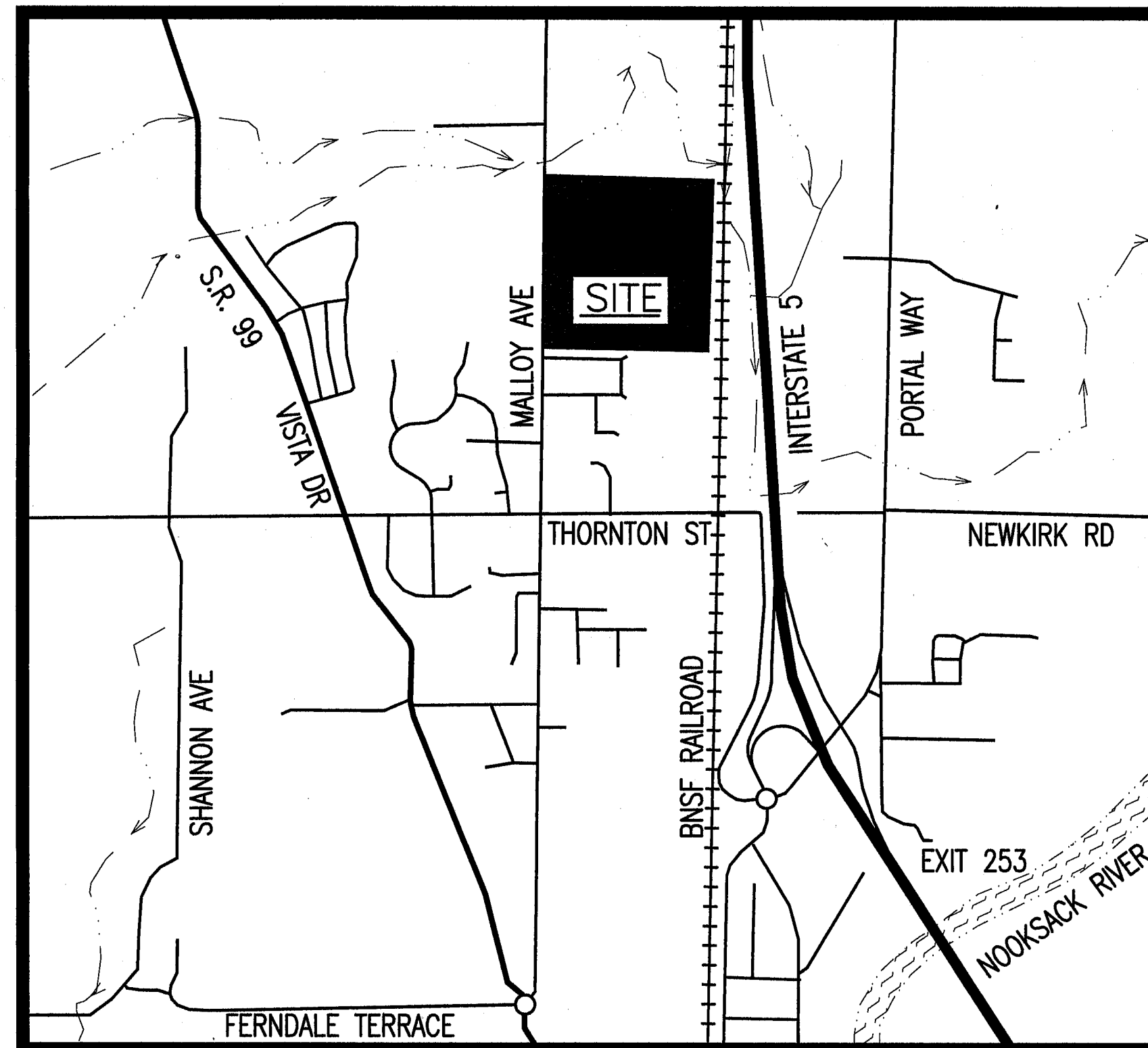
STRUCTURAL ENGINEER
KINGWORKS CONSULTING ENGINEERS
600 DUPONT STREET, SUITE B
BELLINGHAM, WA 98226
CONTACT: JOHN KING, P.E.
PHONE: 360-714-8280

ABBREVIATIONS

AC	ACRES
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
CL	CENTERLINE
CONC	CONCRETE
CONST	CONSTRUCTION
COR	CORNER
CPP	CORRUGATED PLASTIC PIPE
DI	DUCTILE IRON
EX	EXISTING
FND	FOUNDATION
FND	FOUND
FF	FINISHED FLOOR
G	GAS
IE	INVERT ELEVATION
Hxx	ELECTRICAL HANDHOLE#
LF	LINEAR FEET
MB	MAIL BOX
MIN	MINIMUM
MON	MONUMENT
NE	NORTHEAST
NW	NORTHWEST
OCM	OVERHEAD CABLE
OHE	OVERHEAD ELECTRICAL
PC	POINT OF CURVATURE
PERM	PERMANENT
PL	PROPERTY LINE
PROP	PROPERTY
PT	POINT OF TANGENCY
PVC	POLY VINYL CHLORIDE
RD	ROOF DRAIN
RGE	RANGE
ROW	RIGHT OF WAY
SD	STORM DRAIN
SDCB	STORM DRAIN CATCH BASIN
SDMH	STORM DRAIN MANHOLE
SE	SOUTHEAST
SF	SILT FENCE, SQUARE FEET
SL	STREET LIGHT
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
SVC	SERVICE
SW	SOUTHWEST
TBR	TO BE REMOVED
TEMP	TEMPORARY
TESC	TEMPORARY EROSION & SEDIMENT CONTROLS
TP	TEST PIT
TYP.	TYPICAL
TWN	TOWNSHIP
VOx	ELECTRICAL VAULT#
W	WATER
WDOT	WASHINGTON DEPT. OF TRANSPORTATION
WM	WATER METER
WV	WATER VALVE
W.M.	WILLAMETTE MERIDIAN

SHEET INDEX

- C-1 COVER SHEET
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- C-4 TESC PLAN
- C-5 TESC DETAILS & NOTES
- C-6 GRADING PLAN
- C-7 GRADING SECTIONS & NOTES
- C-8 CALICO LOOP STREET & STORM - STA 0+00 TO 4+50
- C-9 CALICO LOOP STREET & STORM - STA 4+50 TO 9+50
- C-10 CALICO LOOP STREET & STORM - STA 9+50 TO 13+25
- C-11 CALICO LOOP STREET & STORM - STA 13+25 TO 18+50
- C-12 CALICO LOOP STREET & STORM - STA 18+50 TO 23+50
- C-13 CALICO LOOP SEWER & WATER - STA 0+00 TO 4+50
- C-14 CALICO LOOP SEWER & WATER - STA 4+50 TO 9+50
- C-15 CALICO LOOP SEWER & WATER - STA 9+50 TO 13+25
- C-16 CALICO LOOP SEWER & WATER - STA 13+25 TO 18+50
- C-17 CALICO LOOP SEWER & WATER - STA 18+50 TO 23+50
- C-18 STREET PARKING & SIGNAGE PLAN
- C-19 SOUTH ALLEY STREET & STORM - STA 0+00 TO 3+10
- C-20 SOUTH ALLEY STREET & STORM - STA 3+10 TO 6+50
- C-21 SOUTH ALLEY SEWER & WATER - STA 0+00 TO 3+10
- C-22 SOUTH ALLEY SEWER & WATER - STA 3+10 TO 6+50
- C-23 NORTH ALLEY STREET & STORM- PHASE 1 IMPROVEMENTS
- C-24 NORTH ALLEY PARKING LOT - PHASE 1 IMPROVEMENTS
- C-25 STORMWATER SITE PLAN
- C-26 STORMWATER DETAILS & NOTES
- C-27 STREET & STORM DETAILS
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- C-29 WATER DETAILS
- C-30 CONSTRUCTION NOTES



VICINITY MAP
1" = 1000'

RECORDED PUBLIC UTILITY EASEMENTS (SEE SHEET C-3A)

DESCRIPTION	A.F. #
(1) SS - CALICO LOOP/JENA LOOP	2017-0802418
(2) SS - OVER LOTS 202/203/204/205	2017-0802919
(3) PUBLIC UTILITIES CALICO LOOP TO S. PROPERTY LINES	2017-0802920
(4) WA - CALICO LOOP/JENA LOOP	2017-0802921
(5) WA - ROXY LOOP	2017-0802922

EXIST	NEW	LEGEND
		BRASS DISK SURVEY MONUMENT
		FOUND SURVEY MARKER
		STREET SIGN
		CATCH BASIN
		SANITARY SEWER MANHOLE
		SANITARY SEWER CLEAN-OUT
		POWER / UTILITY POLE
		WATER VALVE
		WATER METER
		WATER BLOW-OFF ASSEMBLY
		WATER AIR/VAC RELEASE VALVE
		FIRE HYDRANT
		TEST PIT
		TELEPHONE PEDESTAL
		POWER TRANSFORMER
		LIGHT POLE
SS	SS	EX. SANITARY SEWER LINE
SS	SS	PROP. SANITARY SEWER LINE
SD	SD	EX. STORM DRAIN LINE
SD	SD	PROP. STORM DRAIN LINE
W	W	EX. WATER LINE
W	W	PROP. WATER LINE

APPROVED

AUG 28 2017

BY
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

RECORD DRAWING CERTIFICATION

I, THOMAS E. BENNETT, P.E., CERTIFY THAT THE PHASE 1 IMPROVEMENTS FOR THE MALLOY VILLAGE PUD 2 DEVELOPMENT HAVE BEEN INSPECTED BY BENNETT ENGINEERING, LLC AND CONSTRUCTED IN CONFORMANCE WITH THE PLANS APPROVED BY THE PUBLIC WORKS DIRECTOR FOR SAID DEVELOPMENT, DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE.

LEGAL DESCRIPTION

PORTION OF THE SW1/4, SECTION 17 OF TOWNSHIP 39N, RANGE 02E OF WILLAMETTE MERIDIAN, CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON. (PARCEL # 390217-070173)

DATUM

VERTICAL: NGVD 29 USING CITY OF FERNDALE MON. STATION #351
HORIZONTAL: CITY OF FERNDALE MONUMENT NETWORK

BASIS OF BEARINGS

WASHINGTON STATE NORTH ZONE NAD 83/91 COORDINATES USING CITY OF FERNDALE MONUMENTS STATIONS #343 AND #351

NOTE:

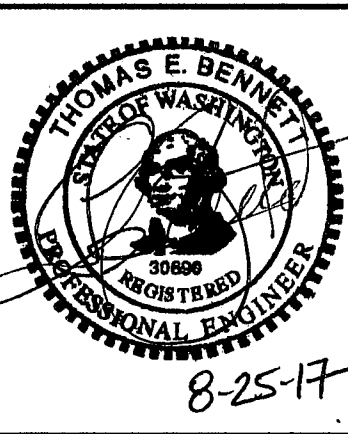
EXISTING FIELD DATA PER LARRY STEELE & ASSOCIATES.

CONSTRUCTION SEQUENCE

THIS CONSTRUCTION SEQUENCE IS INTENDED AS A GENERAL GUIDELINE FOR THE PROPOSED SITE DEVELOPMENT. ANY SIGNIFICANT CHANGES TO THE SEQUENCE SHALL BE DISCUSSED WITH AND APPROVED BY THE CITY OF FERNDALE (CITY) STAFF AND THE PROJECT ENGINEER.

- ARRANGE AND ATTEND A PRE-CONSTRUCTION MEETING BETWEEN THE OWNER, GENERAL CONTRACTOR, AND CITY STAFF, AS REQUIRED.
- ARRANGE FOR A UTILITY LOCATE WITHIN THE PROJECT AREA. VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES WITH THE EXISTING CALICO LOOP IMPROVEMENTS.
- INSPECT THE EROSION CONTROLS THAT WERE INSTALLED IN THE FALL OF 2015, INCLUDING SILT FENCING, THE STABILIZED CONSTRUCTION ENTRANCE AT CALICO LOOP, AND THE DISPERSION TRENCH AT THE VAULT OUTFALL. MAINTAIN OR REPAIR THE EXISTING TESC FEATURES, AS NEEDED.
- INSTALL ADDITIONAL TESC FACILITIES SHOWN ON SHEETS C-4 AND C-5, INCLUDING INTERCEPTOR SWALES WITH CHECK DAMS, AND TEMPORARY AND PERMANENT STORM DRAIN PIPING.
- STRIP TOPSOIL MATERIALS WITHIN THE CLEARING LIMITS AND STOCKPILE THEM IN THE DESIGNATED AREAS. REMOVE UNSUITABLE SOILS FROM THE EXISTING STOCKPILE AREA IN THE WESTERN PORTION OF THE SITE AND WITHIN AREAS TO RECEIVE STRUCTURAL FILL. REUSE THE UNSUITABLE SOILS IN NON-STRUCTURAL OPEN SPACE AREAS OR REMOVE THEM FROM THE SITE.
- ROUGH GRADE THE SITE IN ACCORDANCE WITH THE GRADING PLAN AND SECTIONS PRESENTED ON SHEETS C-6 AND C-7. PLACE AND COMPACT STRUCTURAL FILL MATERIALS WITHIN THE CALICO LOOP AND ALLEY ALIGNMENTS AND BUILDING FOOTPRINTS TO ESTABLISH SUBGRADE ELEVATIONS FOR THE NEW SITE IMPROVEMENTS.
- INSTALL NEW PUBLIC AND PRIVATE UTILITIES AND SERVICE CONNECTIONS, AS SHOWN ON SHEETS C-8 THROUGH C-24. PERFORM FIELD TESTING AND INSPECTIONS OF THE UTILITY INSTALLATIONS, AS REQUIRED PER WATER NOTE 11 ON SHEET 30. CONTRACTOR WILL COMPLETE THE TWO NEW WATER MAIN CONNECTIONS TO THE EXISTING 9-INCH MAINS AT CALICO LOOP IN THE PRESENCE OF THE CITY INSPECTOR.
- COMPLETE THE UPGRADES TO THE EXISTING STORMWATER VAULT, INCLUDING THE NEW OVERFLOW WEIR, OUTLET CONTROL RISER, DISPERSION TRENCH, AND ACCESS RAMP, AS SHOWN ON SHEETS C-25 AND C-26. THE NEW RETAINING WALLS AT THE VAULT ACCESS RAMP WILL BE CONSTRUCTED UNDER A SEPARATE BUILDING PERMIT.
- PLACE AND COMPACT IMPORTED GRAVEL BASE AND CRUSHED ROCK MATERIALS IN THE NEW STREET AND ALLEY SECTIONS, AND INSTALL NEW CURB, GUTTER, AND SIDEWALK FOR CALICO LOOP AND THE INTERSECTIONS WITH ANDRE COURT.
- SAWCUT THE EXISTING PAVEMENT EDGE AT CALICO LOOP. INSTALL ASPHALT PAVEMENT AND COMPLETE PERMANENT PAVEMENT REPAIRS AT THE WATER CROSSING AT CALICO LOOP.
- COMPLETE THE UPGRADES TO THE SANITARY SEWER PUMP STATION IN ACCORDANCE WITH THE PLAN SET APPROVED BY THE CITY.
- FINAL GRADE OR REMOVE ALL REMAINING SOIL STOCKPILES FROM THE SITE. INSTALL TOPSOIL AND HYDROSEED EXPOSED SOIL AREAS.
- REMOVE EXCESS CONSTRUCTION MATERIALS AND DEBRIS FROM THE SITE.
- MAINTAIN TESC FACILITIES, AS REQUIRED, AND REMOVE TESC FACILITIES ONCE SITE HAS STABILIZED.
- PREPARE RECORD DRAWING SET FOR THE COMPLETED IMPROVEMENTS AND SUBMIT TO THE CITY FOR REVIEW AND APPROVAL.
- DEVELOP INDIVIDUAL LOTS UPON FINAL PLAT APPROVAL FROM THE CITY.

0	ISSUED FOR REVIEW	NCS	3/09/16
1	REVISED PER COF COMMENTS	NCS	5/05/16
2	REVISED PER COF COMMENTS (2)	NCS	6/06/16
3	REVISED PER COF COMMENTS (3)	NCS	7/08/16
4	RECORD DRAWING SET	TEB	8/25/17
NO.	REVISION	BY	DATE



BENNETT
ENGINEERING, LLC

CIVIL
ENVIRONMENTAL

2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

JOB NO.:	15007
DWG. NAME:	15007-C1-5 8-25-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

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22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

COVER SHEET
MALLOY VILLAGE PUD 2
FERNDALE WASHINGTON

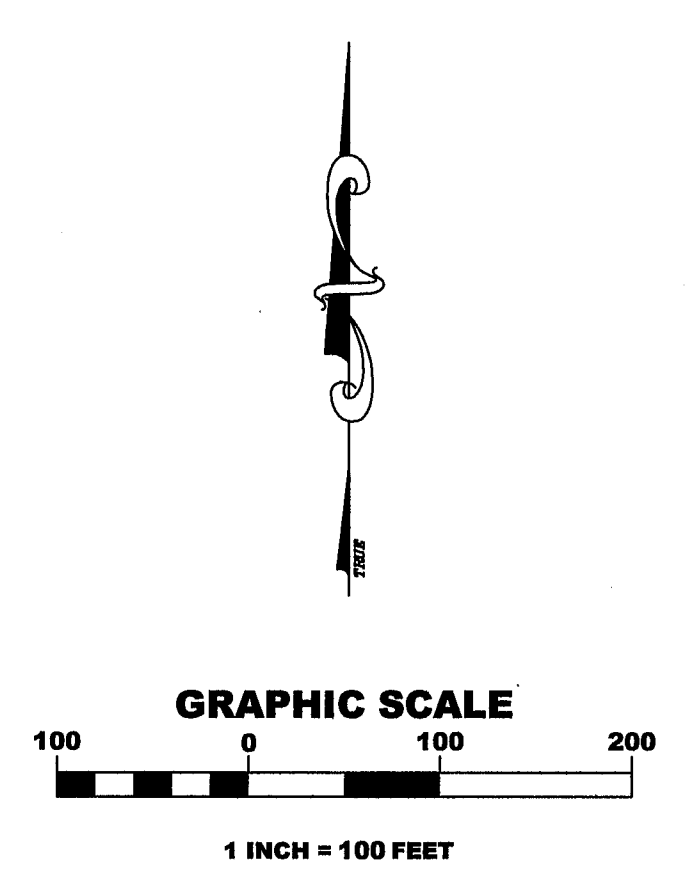
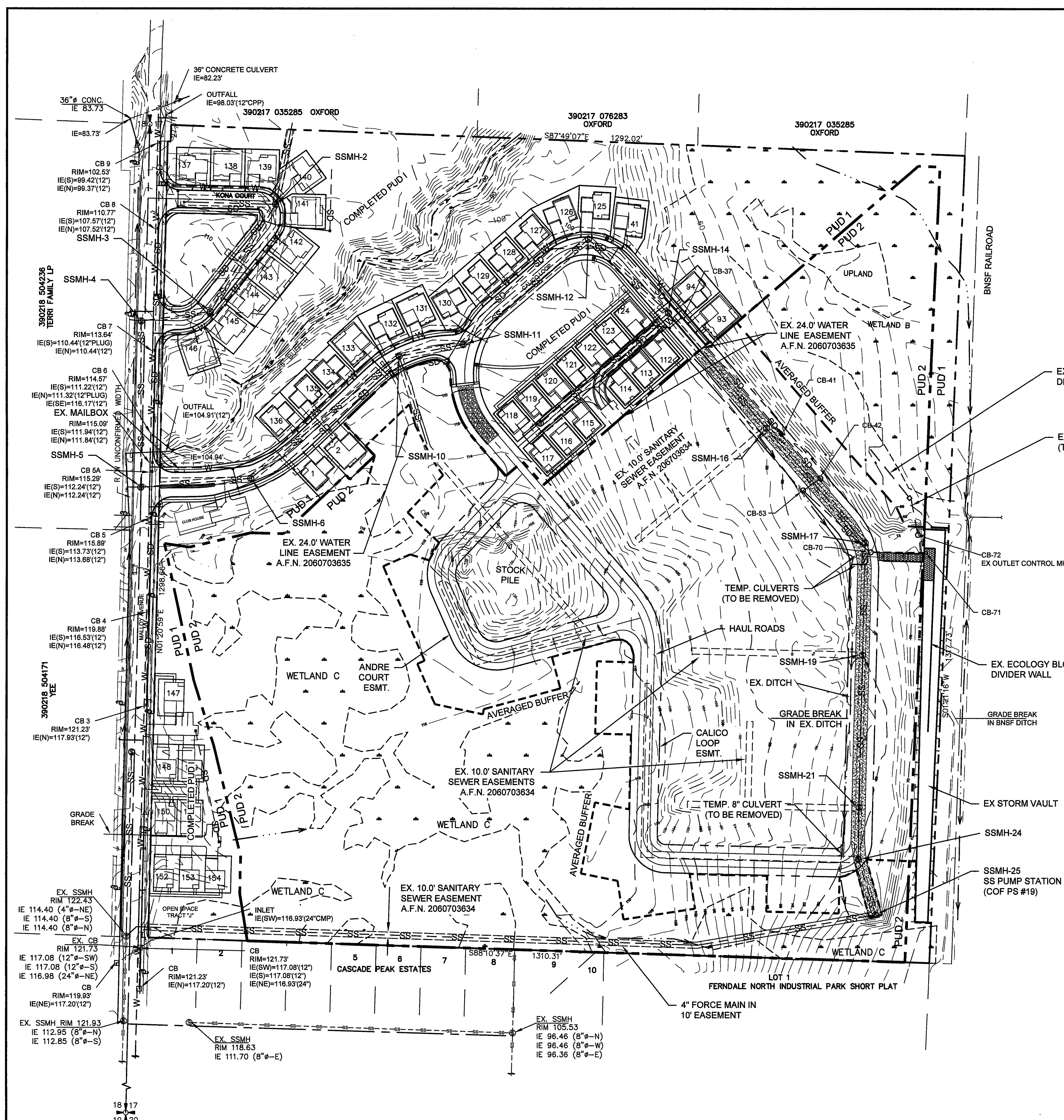
DATE: MARCH 2016 SCALE: H: AS NOTED V: N/A

DRAWING:
C-1

SHEET:
1 OF 31

00624.001 11/2/2017 KB

00624.000 11/2/17



EXISTING SANITARY SEWER STRUCTURES / PIPING

STRUCTURE	TYPE	RIM	IE - IN	IE - OUT	SLOPE (%)
SSMH-2 (KONA)	TYPE 1	106.09	101.69 (8" W) 101.69 (8" NE)	101.69 (8" SW)	0.40
SSMH-3 (KONA)	TYPE 1	110.44	100.89 (8" NE)	100.89 (8" W)	0.64
SSMH-4 (MALLOY)	TYPE 1, 48"	113.61	100.16 (8" E) 100.16 (8" W)	100.16 (8" S)	0.44
SSMH-5 (OUTSIDE DROP)	TYPE 1, 48"	116.16	98.96 (8" N) 98.96 (8" W) 107.5 (8" W) BF	98.96 (8" E)	0.48
SSMH-6	TYPE 1	113.47	98.10 (8" W)	98.10 (8" NE)	0.64
SSMH-10	TYPE 1	113.08	98.10 (8" S)	98.10 (8" NE) 98.10 (8" SW)	0.46
SSMH-11	TYPE 1	107.49	95.59 (8" SW)	95.59 (8" NE)	1.30
SSMH-12	TYPE 2	98.52	92.12 (8" SW)	92.12 (8" SE)	7.62
SSMH-13 (ALLEY)	TYPE 2	100.76		96.76 (8" NE)	6.29
SSMH-14	TYPE 2	86±	78.61 (8" NW) 78.61 (8" SW)	78.61 (8" SE)	1.30
SSMH-16	TYPE 2	80.9	75.4 (8" NW)	75.4 (8" SE)	1.50
SSMH-17	TYPE 2	77.1±	71.6± (8" NW)	71.6± (8" S)	0.68
SSMH-19	TYPE 1	80.8±	70.7± (8" N) 70.7± (8" W)	70.7± (8" S)	0.40
SSMH-21	TYPE 1	81± 69.33 (8" W)	69.33 (8" N)	69.33 (8" S)	0.57
SSMH-24 (OUTSIDE DROP)	TYPE 1	81±	68.85 (8" N) 68.85 (8" W) 71.69 (8" W) BF	68.85 (8" SE)	0.41
SSMH-25 (PUMP STATION)	TYPE 1, 96"	78.97	68.46 (8" NW)	74.50 (2-4" FM SW)	N/A

EXISTING STORM DRAIN STRUCTURES / PIPING

STRUCTURE	TYPE	IE - IN	IE - OUT	SLOPE (%)
CB-37	TYPE 2, 48"	81.31 (12" SW) 79.08 (12" NW)	78.95 (18" SE)	1.0
CB-41	TYPE 2, 48"	76.45 (18" NW)	76.35 (18" SE)	1.5
CB-42	TYPE 2, 48"	74.93 (18" NW)	74.83 (18" SW)	0.5
CB-53	TYPE 2, 48"	74.66 (18" NW)	73.90 (18" SE)	0.53
CB-70	TYPE 2, 48"	73.07 (18" NW)	70.51 (24" E)	10.0
CB-71 (IN VAULT)	TYPE 2, 48"	61.50 (24" W)	64.5 (OPEN RIM)	2.0
CB-72 (OUTLET MH)	TYPE 2, 54"	63.86 (18" E)	64.0 (18" N)	16.7%
CB-73 (DISPERSION CB)	TYPE 1	55.9 (18" S)	55.9 (6" NW)	NA

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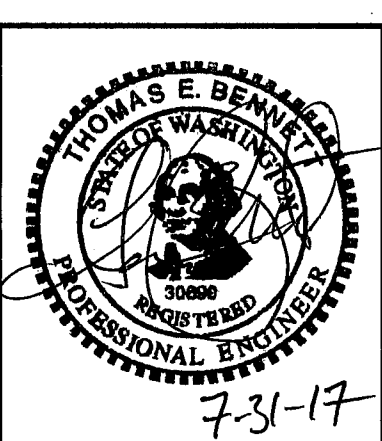
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APPROVED

AUG 28 2017

BY: [Signature]
CITY OF FERDALE
PUBLIC WORKS DEPARTMENT

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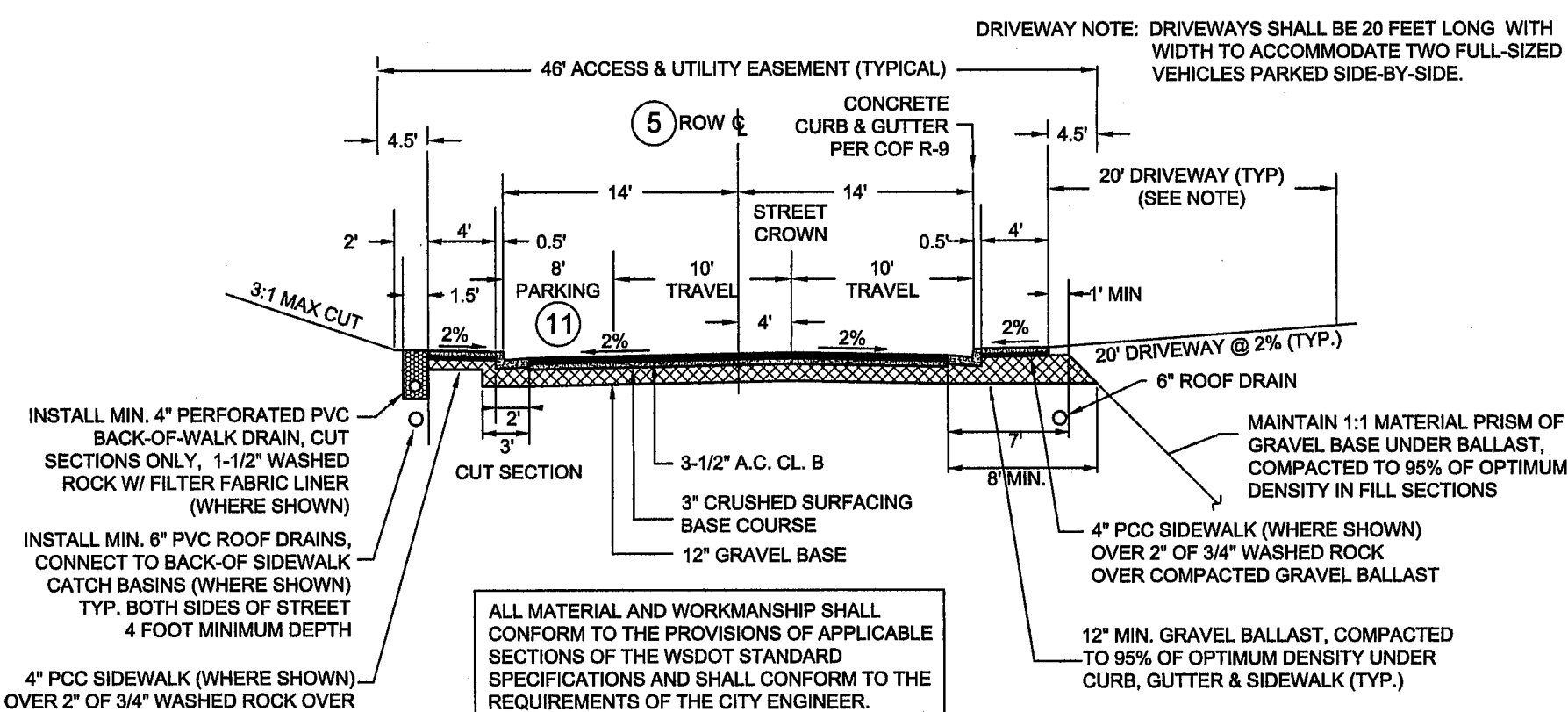
EXISTING CONDITIONS PLAN
MALLOY VILLAGE PUD 2
FERDALE WASHINGTON

DRAWING:	C-2
SHEET:	2 OF 31

DATE: MARCH 2016 SCALE: H: 1" = 100' V: N/A

SITE DEVELOPMENT NOTES:

- THE ORIGINAL MALLOY VILLAGE PUD WAS APPROVED BY THE FERNDAL CITY COUNCIL IN 2004, AND FINAL PLAT APPROVAL WAS ISSUED FOR THE COMPLETED PHASES IN 2008. THE ORIGINAL PUD INCLUDED A TOTAL OF 154 DETACHED SINGLE-FAMILY RESIDENCES (SFR) ON "POSTAGE STAMP" LOTS, SEVEN COMMUNITY-OWNED PARKS, SENSITIVE OPEN SPACE AND WETLAND AREAS, PUBLIC WATER AND SEWER SERVICES, STREET IMPROVEMENTS TO MALLOY AVENUE, FOUR PRIVATE STREETS (KONA COURT, CALICO LOOP, ANDRE COURT, AND FITZGERALD LANE) WITH DETACHED SIDEWALKS, A PRIVATE STORM DRAIN SYSTEM AND CENTRAL STORMWATER TREATMENT AND DETENTION VAULT, A SEWER PUMP STATION (CITY OF FERNDAL (COF) PS #19) LOCATED IN THE SOUTHEAST CORNER OF THE SITE, AND A 4-INCH FORCE MAIN ROUTED TO THE GRAVITY SEWER AT MALLOY AVENUE. PUBLIC UTILITY EASEMENTS WERE ESTABLISHED FOR THE WATER AND SEWER SYSTEM IMPROVEMENTS (SHEET C-2). THE ENTIRE DEVELOPMENT AREA WAS CLEARED AND GRADED (SHEET C-2), AND SEVERAL ISOLATED WETLAND AREAS WERE FILLED UNDER AN ARMY CORPS NATIONWIDE PERMIT. A 25-FOOT BUFFER WAS ESTABLISHED AROUND THE WETLANDS B AND C, AND THE NATURAL DRAINAGE CHANNEL THAT RUNS THROUGH THE NORTHERN PORTION OF THE SITE. LANDSCAPING OF THE STREET FRONTAGE, PARK AREAS, AND SFR LOTS WAS INSTALLED IN ACCORDANCE WITH THE APPROVED PLAN. A TOTAL OF 48 SFR, THE CLUBHOUSE FACILITY, AND ASSOCIATED INFRASTRUCTURE WERE CONSTRUCTED UNDER THE ORIGINAL PUD.
- MALLOY VILLAGE PUD 2: AT THE REQUEST OF THE COF, THE APPLICANT SUBMITTED A NEW PUD APPLICATION FOR THE REMAINING 24.5-ACRE PARCEL (#390217-070173-0000) IN JULY 2015, WHICH INCLUDED 45 ADDITIONAL DETACHED SFR LOTS (LOTS 201 THROUGH 245) AND 64 ZERO LOT LINE (ZLL) LOTS (LOTS A-1 THROUGH N-5) THAT WILL BE GROUPED IN FOURTEEN 4- AND 5-UNIT BUILDINGS. THE MALLOY VILLAGE PUD 2 WAS APPROVED BY THE FERNDAL CITY COUNCIL UNDER RESOLUTION 15-11-16-C ON NOVEMBER 16, 2015. THE PUD 2 MAINTAINS THE ORIGINAL ALIGNMENT OF CALICO LOOP AND ANDRE COURT, BUT ELIMINATES FITZGERALD LANE TO CREATE MORE OPEN SPACE AND REDUCE IMPERVIOUS SURFACING. LANDSCAPING OF THE OPEN SPACES, PRIVATE LOTS, AND STREET FRONTAGE WILL BE COMPLETED IN ACCORDANCE WITH AN APPROVED LANDSCAPING PLAN. STREET LIGHTING WILL BE INSTALLED IN ACCORDANCE WITH PLANS DEVELOPED BY PUGET SOUND ENERGY. THE NORTH AND SOUTH ALLEYS WERE CHANGED TO ACCOMMODATE THE NEW LOT LAYOUTS. DRIVEWAYS WERE ADDED TO THE NEW SFR LOCATED ON THE NORTH ALLEY. OPEN SPACES ARE PROVIDED THROUGHOUT THE PUD 2 FOR PARK AREAS AND OTHER RECREATION USES (SHEET C-3). UNDER THE PROPOSED PHASING PLAN, ANDRE COURT AND LOTS 208 - 220 AND 224 WILL BE DEVELOPED UNDER PHASE 2, AND THE REMAINDER OF THE NORTH ALLEY IMPROVEMENTS AND LOTS 225 - 234, 236 AND 237 WILL BE DEVELOPED UNDER PHASE 3.
- NORTHWEST ECOLOGICAL SERVICES (NES) COMPLETED THE ORIGINAL WETLAND DELINEATION, MITIGATION PLAN, AND NATIONWIDE PERMITS FOR WETLAND FILL IN MAY 2004. NES PERFORMED A FOLLOW-UP WETLAND DELINEATION IN JULY 2015 TO CONFIRM THE BOUNDARIES FOR WETLANDS B AND C. WETLANDS B AND C WERE RATED USING THE 2014 WASHINGTON DEPARTMENT OF ECOLOGY RATING SYSTEM AND CLASSIFIED AS CATEGORY III WETLANDS, WHICH REQUIRE 50-FOOT BUFFERS UNDER THE CURRENT COF CRITICAL AREAS ORDINANCE. THE NES REPORT, DATED JULY 15, 2015, PROVIDED SUPPORT FOR THE PROPOSED BUFFER AVERAGING FOR PUD 2, WITH THE TOTAL BUFFER AREA CREATED (3.67 ACRES) EXCEEDING THE AREA REQUIRED FOR THE 50-FOOT BUFFERS (3.39 ACRES) AROUND THE PERIMETER OF THE SITE. THE COUNCIL RESOLUTION REQUIRES THAT SPLIT RAIL FENCING AND WETLAND PROTECTION AREA SIGNAGE BE INSTALLED ALONG THE PERIMETER OF THE WETLAND BUFFERS.
- SITE CLEARING AND GRADING: THE ENTIRE PUD 2 SITE AREA AND ROAD ALIGNMENTS WERE ROUGH GRADED IN 2005, INCLUDING CREATION OF A LARGE SOIL STOCKPILE AREA WITHIN ANDRE LOOP. A NEW GRADING PLAN AND LAND DISTURBANCE PERMIT (LDP) APPLICATION WAS DEVELOPED FOR THE PUD 2 PROJECT IN JULY 2015, AND THE LDP WAS ISSUED BY THE COF IN AUGUST 2015. THE MAJORITY OF THE IMPROVEMENTS WERE INSTALLED IN THE FALL OF 2015, BUT MAJOR EARTHWORK WAS POSTPONED DUE TO POOR SOIL QUALITY OBSERVED IN THE STOCKPILED MATERIALS AND THE ONSET OF WET WEATHER. A REVISED GRADING PLAN AND SECTIONS ARE SHOWN ON SHEETS C-6 AND C-7.
- PRIVATE STREET IMPROVEMENTS (CALICO LOOP AND ANDRE COURT) - THE PHASE 1 STREET IMPROVEMENTS FOR CALICO LOOP, INCLUDING THE ANDRE COURT INTERSECTIONS, ARE SHOWN ON SHEETS C-8 THROUGH C-18. THE TYPICAL STREET SECTION FOR CALICO LOOP AND ANDRE COURT INCLUDES A 28-FOOT PAVED WIDTH (FACE OF CURB TO FACE OF CURB), WHICH PROVIDES TWO 10-FOOT TRAVEL LANES AND 8 FEET OF PARALLEL PARKING ON ONE SIDE, WHERE SHOWN. THE CROWN OF THE STREET SHALL BE SET 4 FEET OFF THE STREET CENTERLINE, CORRESPONDING TO THE CENTER OF THE TRAVEL LANES. ATTACHED SIDEWALK WILL GENERALLY BE INSTALLED ON BOTH SIDES OF THE STREET, EXCEPT THAT THE SIDEWALK IS DELETED FROM CALICO LOOP WHERE LOTS DO NOT FRONT THE STREET. A TYPICAL 46-FOOT WIDE ACCESS AND UTILITY EASMT WILL BE ESTABLISHED FOR THE PRIVATE STREETS (SEE SHEET C-3A).
- SOUTH AND NORTH ALLEYS - THE SOUTH ALLEY (JENA LOOP) AND ASSOCIATED UTILITIES WILL BE CONSTRUCTED AS PART OF THE PHASE 1 IMPROVEMENTS (SHEETS C-19 THROUGH C-22). IN ADDITION, THE PARKING AREA LOCATED SOUTH OF LOTS 115 AND 116 AND A PORTION THE NORTH ALLEY (ROXY LOOP) AND WATER MAIN EXTENSION WILL BE CONSTRUCTED UNDER THE PHASE 1 PROJECT. THE 20-FOOT WIDE ALLEY SECTIONS ARE V-SHAPED TO CONTROL DRAINAGE (SEE DETAIL, SHEET C-19). A TYPICAL 32.5-FOOT ACCESS AND UTILITY EASMT WILL BE ESTABLISHED FOR THE PRIVATE ALLEYS (SEE SHEET C-3A).
- UTILITIES: AN 8-INCH DUCTILE IRON WATER MAIN WILL BE INSTALLED AROUND THE REMAINDER OF CALICO LOOP AND THE SOUTH AND NORTH ALLEY ALIGNMENTS (SHEETS C-13 THROUGH C-23). NEW FIRE HYDRANTS WILL BE INSTALLED, AS APPROVED BY WCFD #7, AND SINGLE AND DUAL WATER SERVICES WILL BE INSTALLED AT EACH LOT. AN 8-INCH PUBLIC SEWER MAIN WAS INSTALLED IN THE CALICO LOOP EASEMENT THROUGH THE ORIGINAL PUD AND EXTENDED TO THE SEWER PUMP STATION IN THE SOUTHEAST CORNER OF THE SITE. AN EXISTING FOUR-INCH HDPE FORCE MAIN EXTENDS FROM THE PUMP STATION TO THE GRAVITY SEWER IN THE MALLOY AVENUE RIGHT-OF-WAY NEAR THE SOUTHWEST CORNER OF THE PARENT PARCEL. NEW PUBLIC 8-INCH SEWER MAINS WILL BE INSTALLED WITHIN THE REMAINDER OF THE CALICO LOOP AND SOUTH ALLEY EASEMENTS DURING THE PHASE 1 WORK. THE SEWER MAIN WILL ALSO BE EXTENDED TO THE WEST END OF THE INTERSECTIONS WITH ANDRE COURT AND THE NORTH ALLEY, WHICH WILL BE COMPLETED UNDER FUTURE PHASES OF WORK. PUBLIC UTILITY EASEMENTS SHALL BE ESTABLISHED FOR THE AS-BUILT WATER AND SEWER IMPROVEMENTS (SEE SHEET C-3A).
- THE EXISTING CONCRETE STORM VAULT IS 650 FEET LONG BY AN AVERAGE OF 26.5 FEET WIDE BY 18 FEET HIGH. THE VAULT BOTTOM IS SET AT ELEVATION 60.7 FEET AND THE TOP OF THE VAULT WALLS EXTENDS TO ELEVATION 178.67 FEET. AN ECOLOGY BLOCK DIVIDER WALL IS INSTALLED IN THE BOTTOM OF THE VAULT TO LIMIT SHORT-CIRCUITING. THE TOP OF THE DIVIDER WALL IS SET AT ELEVATION 64.7 FEET. A PERMANENT POOL IS MAINTAINED IN THE BOTTOM OF THE VAULT AT ELEVATION 64.0 FEET TO PROVIDE BASIC WET VAULT TREATMENT. STORMWATER ENTERS THE VAULT VIA AN EXISTING 24-INCH STORM DRAIN AT CB-71, LOCATED ON THE NORTH SIDE OF THE VAULT. WATER EXITS THE VAULT VIA AN 18-INCH PIPE TO THE 54-INCH OUTLET CONTROL MANHOLE (CB-72), AND THEN DISCHARGES AT CONTROLLED RATES TO CB-73 AND AN EXISTING DISPERSION TRENCH LOCATED NORTH OF THE VAULT. THE ACTIVE DETENTION RANGE IN THE VAULT IS BETWEEN ELEVATION 64.0 AND 75.0 FEET. THE EXISTING WET/DETENTION VAULT CONFIGURATION WAS ANALYZED USING THE WESTERN WASHINGTON HYDROLOGY MODEL (WWHM), IN ACCORDANCE WITH THE 2005 ECOLOGY MANUAL AND CURRENT COF STANDARDS. SEVERAL IMPROVEMENTS WILL BE MADE TO THE VAULT UNDER PHASE 1 OF THE PROJECT, AS SHOWN ON SHEETS C-25 AND C-26, INCLUDING: INSTALLATION OF A MANHOLE RISER SECTION AT CB-71 AND 44 LF OF 42-INCH PIPE FROM CB-71 TO A 4-FOOT GRADE RISE; A NEW 18-INCH CONTROL RISER IN CB-72; GRAVEL ACCESS ROAD TO CB-72; A 50-FOOT DISPERSION TRENCH; AN OVERFLOW WEIR AND DISPERSION PAD AND CHANNEL; RETAINING WALL EXTENSIONS ON THE NORTH AND SOUTH SIDES OF THE ACCESS RAMP; A NEW RAMP SECTION EXTENDING FROM CALICO LOOP DOWN INTO TO THE VAULT; AND ADDITIONAL CHAIN-LINK FENCING AND ACCESS GATE. PRIOR TO COMMENCING THE IMPROVEMENTS, THE PERMANENT POOL IN THE VAULT AND THE CB-71, CB-72, AND CB-73 STRUCTURES SHALL BE PUMPED OUT TO ALLOW INSPECTION AND REMOVAL OF THE SEDIMENT ACCUMULATION.
- STORMWATER SYSTEM IMPROVEMENTS: THE PRIVATE STORM DRAIN SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED STORMWATER SITE PLAN REPORT AND SHEETS C-8 THROUGH C-26. RUNOFF FROM THE NEW INTERNAL STREET AND DRIVEWAYS WILL BE COLLECTED BY THE STREET STORM DRAIN SYSTEM AND ROUTED TO THE STORMWATER VAULT FOR BASIC TREATMENT AND DETENTION. ROOF DRAINS FOR LOTS 210 - 216 (PHASE 2) AND LOTS 238 - 245 (PHASE 1) WILL BE ROUTED TO DISPERSION TRENCHES LOCATED ADJACENT TO THE WETLAND BUFFER (SHEETS C-25 AND C-26). OTHERWISE, ROOF DRAINS FROM THE NEW RESIDENCES WILL BE ROUTED TO THE BACK OF SIDEWALK CATCH BASINS (BSCB'S, SEE DETAIL, SHEET C-10) AND DISCHARGED VIA 8-INCH PIPING TO THE STREET STORM DRAIN SYSTEM.
- MAILBOX IMPROVEMENTS: THE COUNCIL RESOLUTION REQUIRES THAT THE CENTRAL MAILBOXES FOR THE DEVELOPMENT BE MOVED FROM THE EXISTING LOCATION AT THE NORTHEAST INTERSECTION OF MALLOY AVENUE AND CALICO LOOP TO A NEW LOCATION APPROVED BY THE U.S. POSTAL SERVICE AND COF. THE NEW MAILBOXES AND MAIL PICK-UP AREA SHALL BE DESIGNED AND CONSTRUCTED IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA). THE CENTRAL MAILBOXES WILL BE LOCATED AT THE EAST END OF THE CLUBHOUSE PARKING AREA, WITH ADA-COMPLIANT SIDEWALK ACCESS FROM CALICO LOOP (SEE DETAIL, SHEET C-18).
- STREET PARKING AND SIGNAGE PLAN: THE STREET SECTION FOR CALICO LOOP AND ANDRE COURT INCLUDES TWO 10-FOOT TRAVEL LANES AND 8-FOOT PARALLEL PARKING ON ONE SIDE, WHERE SHOWN. NEW STRIPING AND SIGNAGE WILL BE INSTALLED TO ESTABLISH PARALLEL PARKING STALLS AND PEDESTRIAN CROSS-WALK LOCATIONS (SHEET C-18). IN ADDITION, EACH NEW RESIDENCE WILL INCLUDE A 2-CAR GARAGE AND A DRIVEWAY THAT PROVIDES PARKING FOR TWO CARS.
- SEWER PUMP STATION UPGRADE: UPGRADES TO THE SEWER PUMP STATION WILL BE COMPLETED DURING THE PHASE 1 WORK UNDER A SEPARATE DRAWING SET IN ACCORDANCE WITH CURRENT COF STANDARDS AND PERMIT REQUIREMENTS.



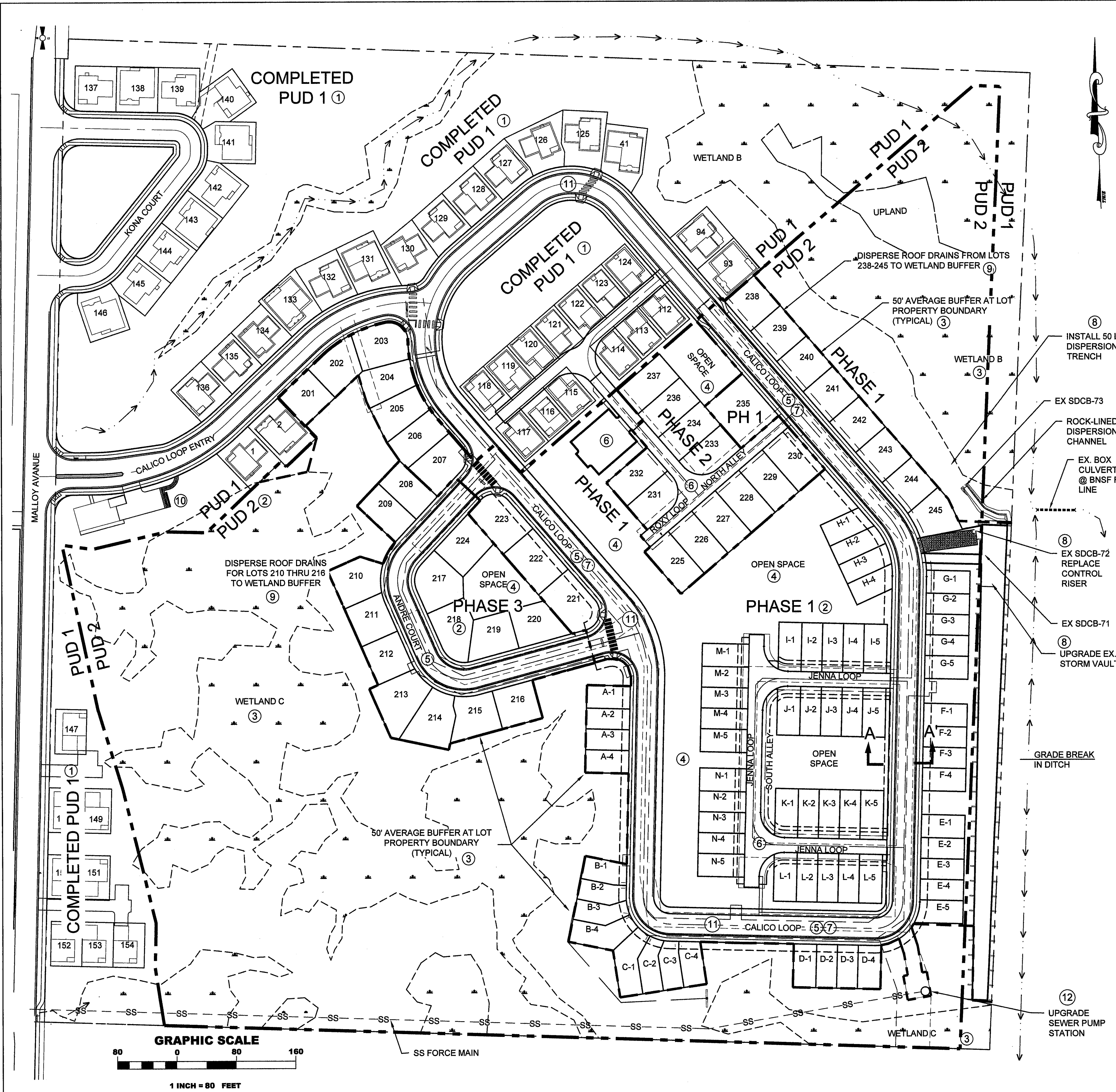
TYPICAL PRIVATE STREET SECTION A-A'
(NO SCALE)
(AFTER COF R-4)

PROPOSED PROJECT SUMMARY	
NEW ZLL LOTS*	64 (LOTS A-1 TO N-5)
NEW SFR LOTS	45 (LOTS 201-245)
TOTAL (NEW)	109 UNITS
EX. SFR LOTS	48
EX. CLUBHOUSE	1
OVERALL TOTAL	158 UNITS
*ZLL = ZERO LOT LINE	

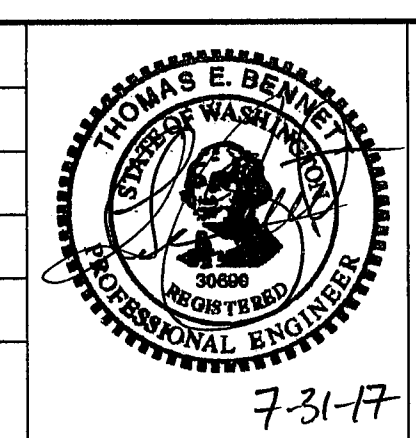
APPROVED

AUG 28 2017

BY: 
CITY OF FERNDAL
PUBLIC WORKS DEPARTMENT



NO.	REVISION	BY	DATE
0	ISSUED FOR REVIEW	NCS	3/09/16
1	REVISED PER COF COMMENTS	NCS	5/05/16
2	REVISED PER COF COMMENTS (2)	NCS	6/08/16
3	REVISED PER COF COMMENTS (3)	NCS	7/08/16
4	RECORD DRAWING SET	TEB	7/31/17



BENNETT
ENGINEERING, LLC

CIVIL
ENVIRONMENTAL
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

JOB NO.:	15007
DWG. NAME:	15007 C-3-C24 ST&SD 7-31-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

SITE DEVELOPMENT/PHASING PLAN
MALLOY VILLAGE PUD 2
FERNDAL WASHINGTON

DRAWING:	C-3
SHEET:	3 of 31

006.24.003 1/2/17 KB

**CIVIL
ENVIRONMENTAL**
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

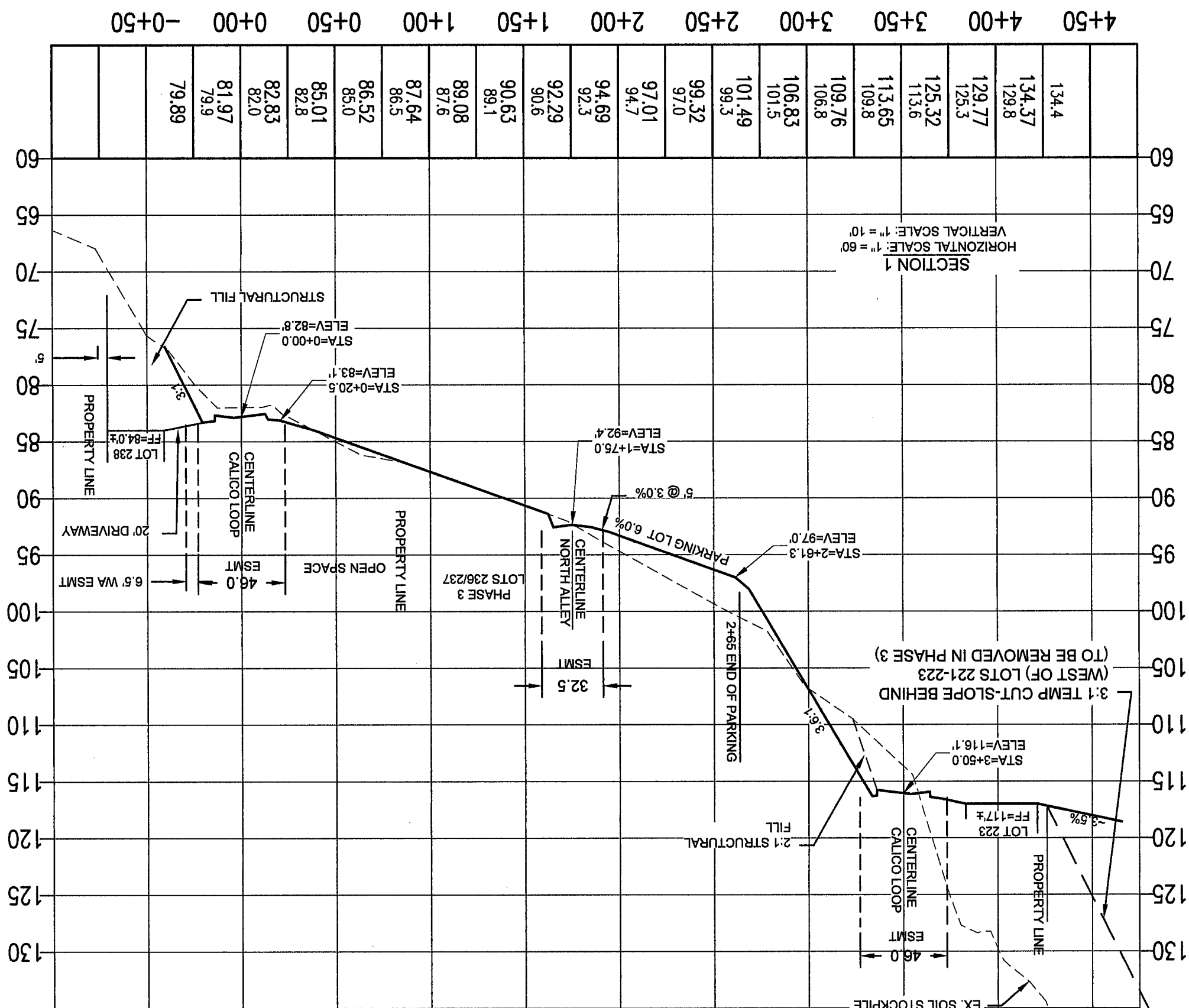
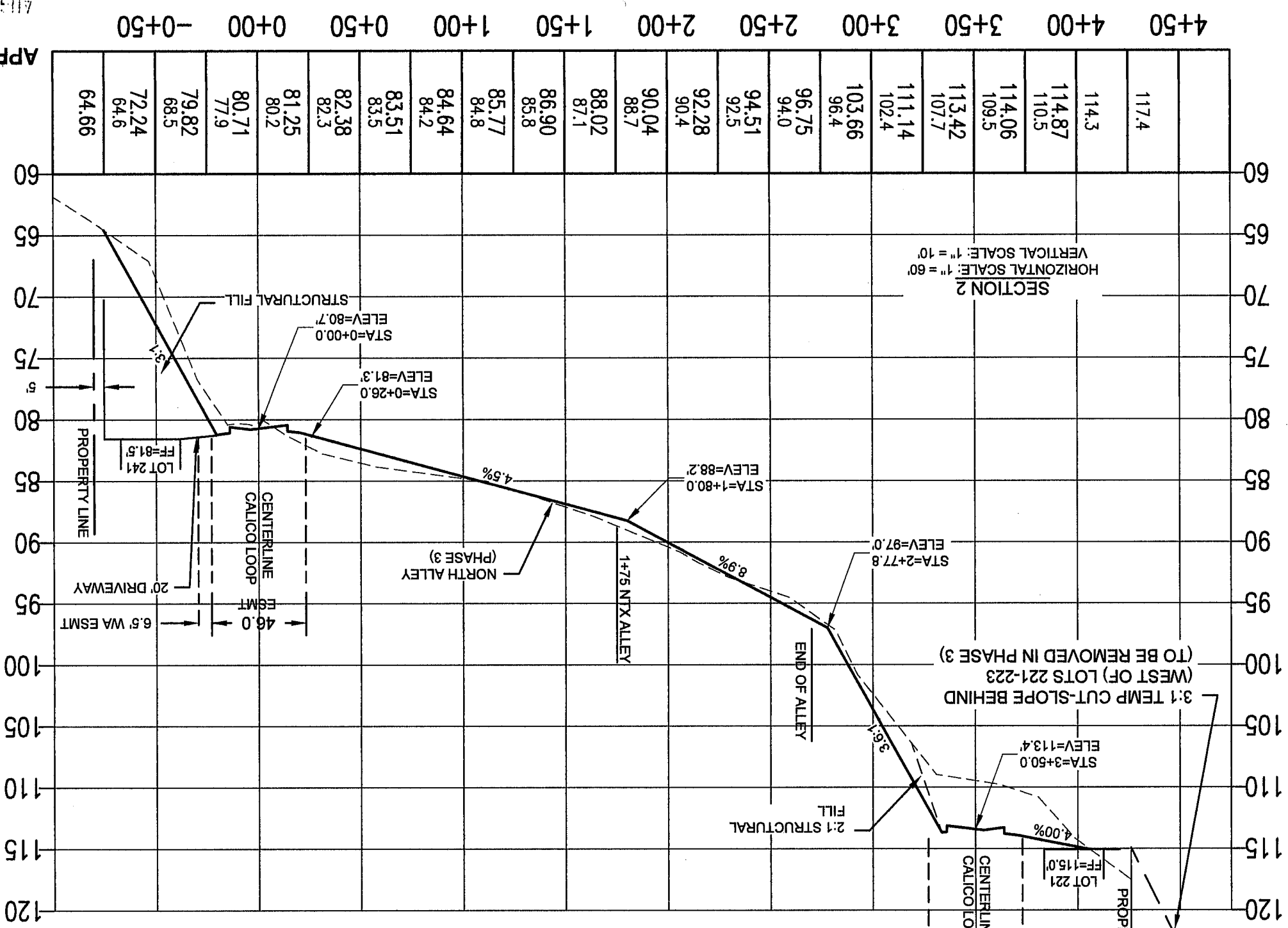
15007	JOB NO.:
DWG. NAME: 15007-C6-C7 GRADING 7-31-17	DESIGNED BY:
TEB	DRAWN BY:
JSM	CHECKED BY:
TEB	

DATE: _____ SCALE: _____ H: 1" = 60' V: N/A

GRADING PLAN
MALLOY VILLAGE PUD 2
FERNDALE WASHINGTON

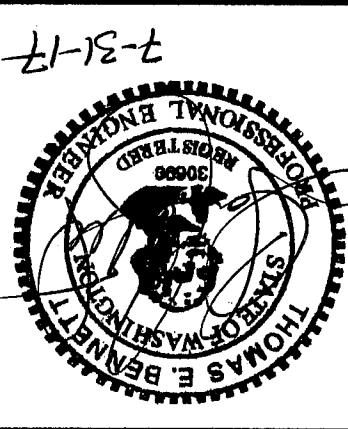
DRAWING: C-6

SHEET: 7 OF 31



00624.007 11/2/17 KB

NO.	REVISION	BY	DATE
4	RECORD DRAWING SET	TEB	7/3/17
3	REVISED PER COF COMMENTS (3)	NCS	7/8/16
2	REVISED PER COF COMMENTS (2)	NCS	6/8/16
1	REVISED PER COF COMMENTS	NCS	5/8/16
0	ISSUED FOR REVIEW	NCS	3/8/16



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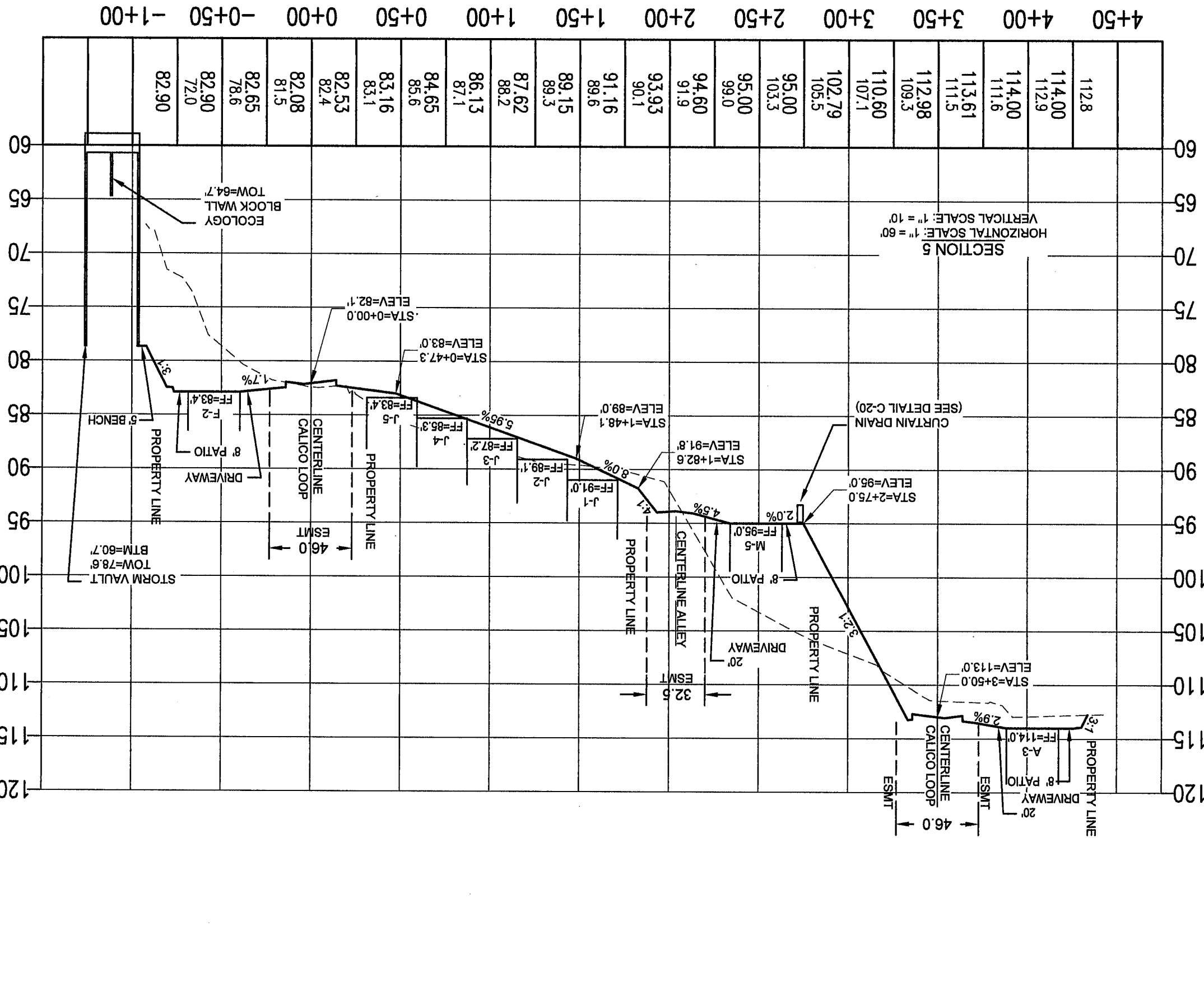
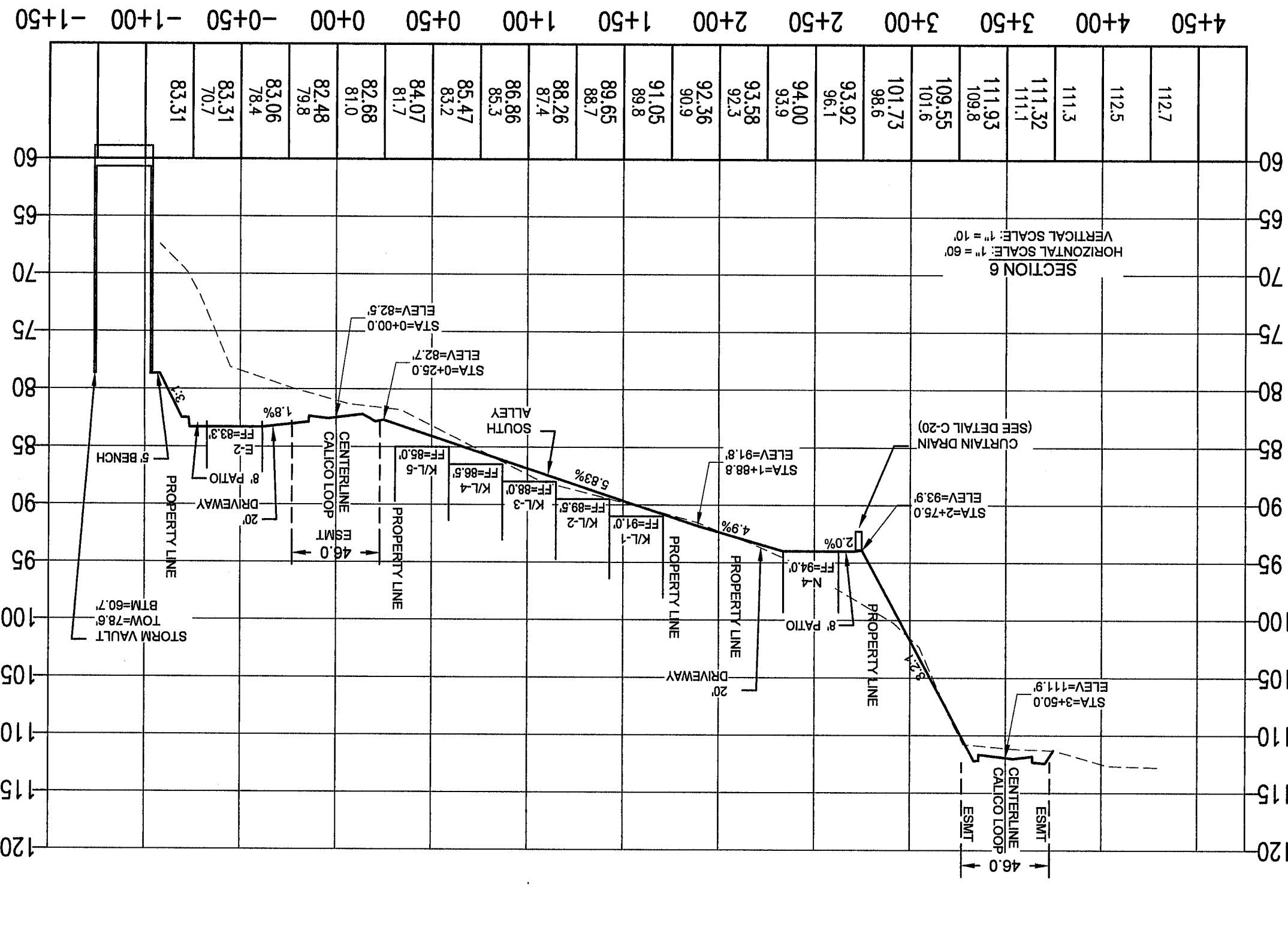
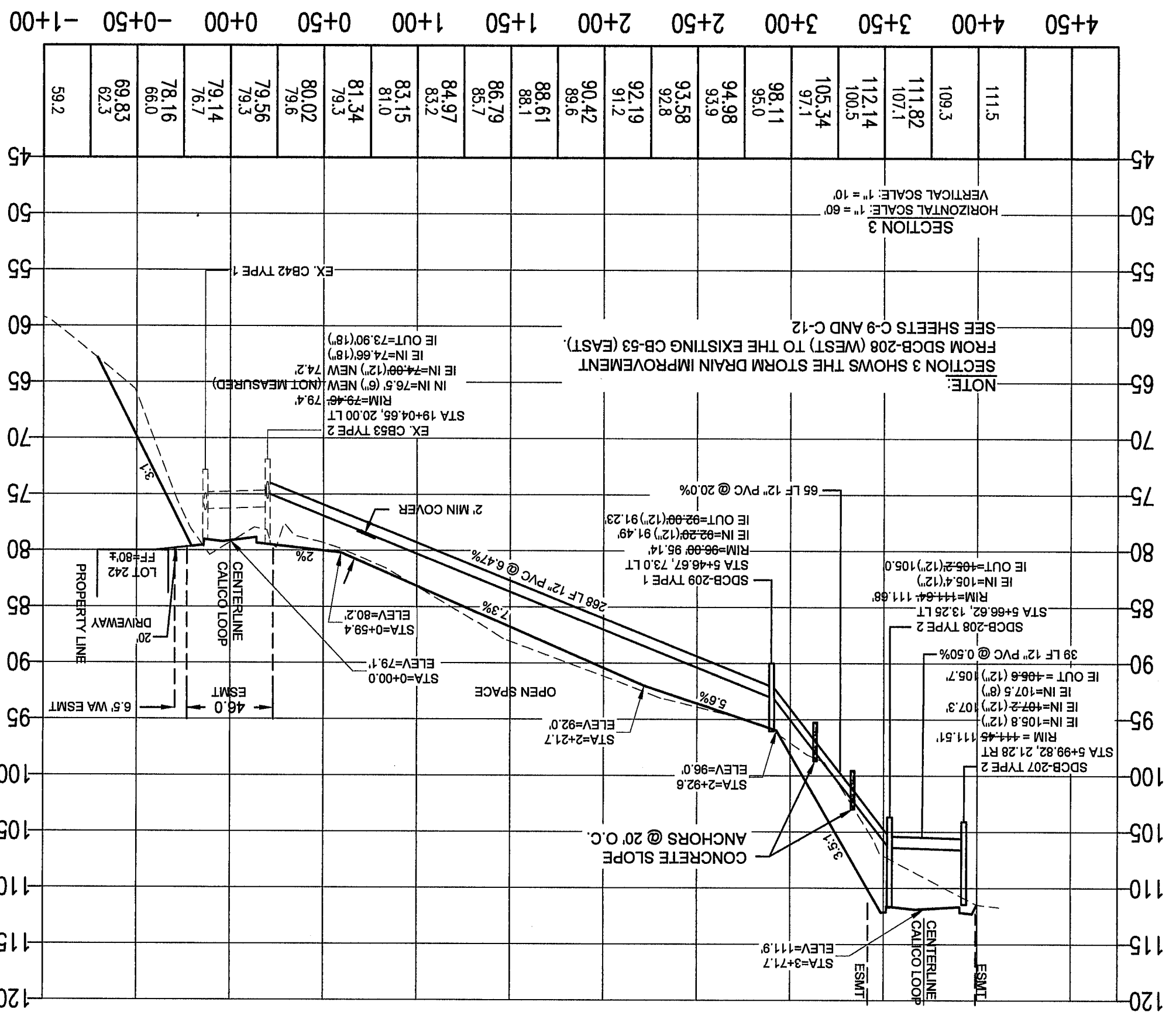
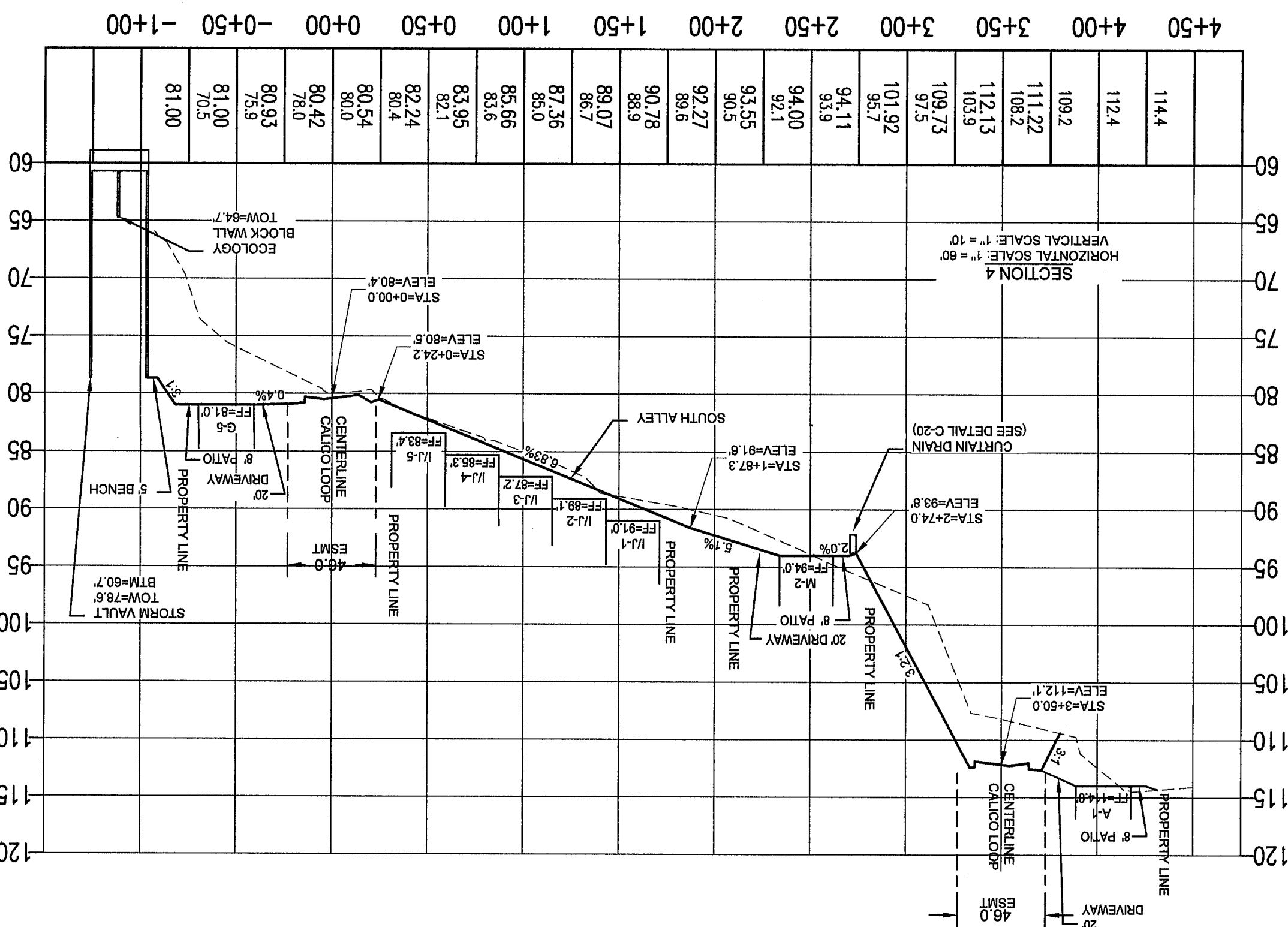
CIVIL
ENVIRONMENTAL
2324 JAMES STREET
BELLINGHAM, WA 98225
Cell: (360) 739-9844
Ph: (360) 671-2600

JOB NO.: 15007
DWG. NAME: 15007-C6-C7 GRADING 7-31-17
DESIGNED BY: TEB
DRAWN BY: JSM
CHECKED BY: TEB

MALLOY VILLAGE LLC
24410 HAWTHORNE BLVD, STE 5
TORRANCE, CA 90501

DATE: MARCH 2016
SCALE: H: 1" = 60' V: 1" = 10'
GRADING SECTIONS & NOTES
MALLOY VILLAGE PUD 2
FERNDALE WASHINGTON

DRAWING: C-7
SHEET: 8 OF 31

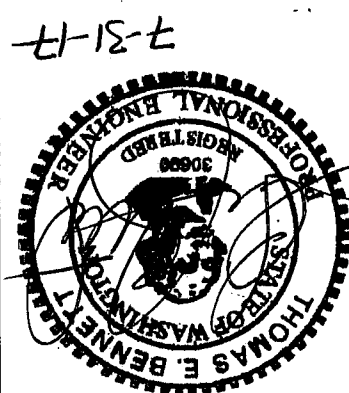


APPROVED
AUG 28 2017
CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

SITE GRADING NOTES
A. SITE GRADING TO BE COMPLETED IN ACCORDANCE WITH APPENDIX J OF THE 2012 INTERNATIONAL BUILDING CODE (IBC).
B. TO ENSURE THAT THE WORK IS PERFORMED AND RECORDED PER APPENDIX J OF THE ENGINEER OF RECORD FOR FINAL PROJECT CERTIFICATION.
C. RECORDS AND DEPTH OF FILL FROM THE GEOTECHNICAL AGENCY CERTIFYING THE LOT IS APPROVED FOR HOME CONSTRUCTION. THE BUILDING ENVELOPE SHALL BE DEFINED ON THE FINAL PLAT MAP PRIOR TO RECORDING.
D. IF LOTS ARE NOT TESTED AND CERTIFIED DURING SITE GRADING ACTIVITIES, A NOTE SHALL BE ADDED TO THE FINAL PLAT WHICH STATES "LOTS MAY HAVE RECEIVED UNCONSOLIDATED FILLS THAT HAVE NOT BEEN CERTIFIED BY A GEOTECHNICAL AGENCY AND WILL REQUIRE CERTIFICATION AND/OR REMOVAL TO NATIVE BEARING SOIL FOR HOME CONSTRUCTION". UNCONSOLIDATED FILL DEPTHS FOR EACH LOT SHALL BE LISTED ON THE FINAL PLAT DOCUMENT PRIOR TO RECORDING.

00624.008 11/4/17 LCB

NO.	REVISION	BY	DATE
4	ISSUED FOR REVIEW	NCS	3/09/16
3	REVISED PER COF COMMENTS	NCS	5/05/16
2	REVISED PER COF COMMENTS (2)	NCS	6/06/16
1	REVISED PER COF COMMENTS (3)	NCS	7/08/16
0	RECORD DRAWING SET	TEB	7/31/17



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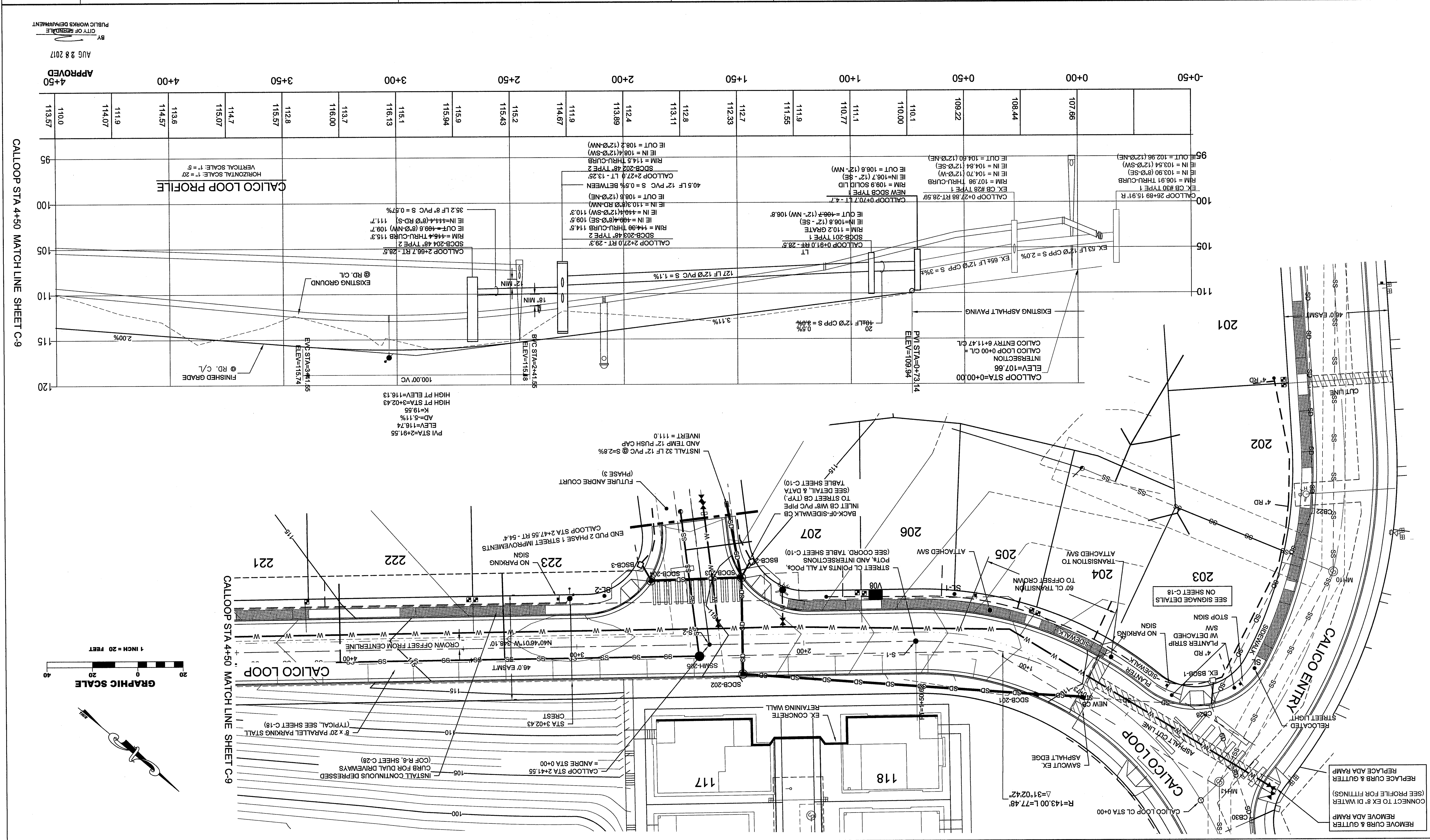
CIVIL
ENVIRONMENTAL
2324 JAMES STREET
BELLINGHAM, WA 98225
Cell: (360) 739-9844
Ph: (360) 671-2600

JOB NO.:	15007
DWG. NAME:	15007 C-3-C24 ST&SD 7-31-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

DATE: MARCH 2016
SCALE: H: 1" = 20'
V: 1" = 5'
CALICO LOOP STREET & STORM
MALLOY VILLAGE PUD 2

DRAWING: C-8
SHEET: 9 OF 31



006241.009 11/6/17 LTB

NO.	REVISION	BY	DATE
1	ISSUED FOR REVIEW	NCS	3/09/16
2	REVISED PER COF COMMENTS (2)	NCS	6/06/16
3	REVISED PER COF COMMENTS (3)	NCS	7/08/16
4	REVISED SDCB-207	NCS	7/28/16
5	RECORD DRAWING SET	TBB	7/31/17



BENNETT
ENGINEERING, LLC

CIVIL
ENVIRONMENTAL

2224 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

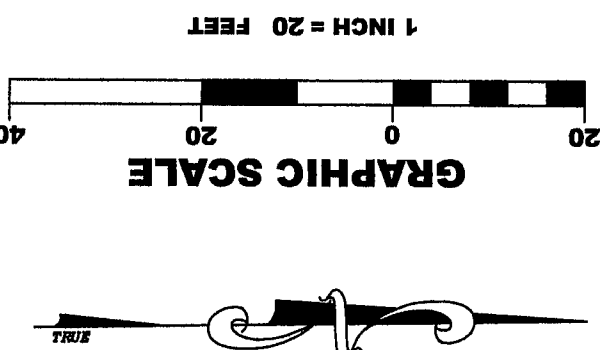
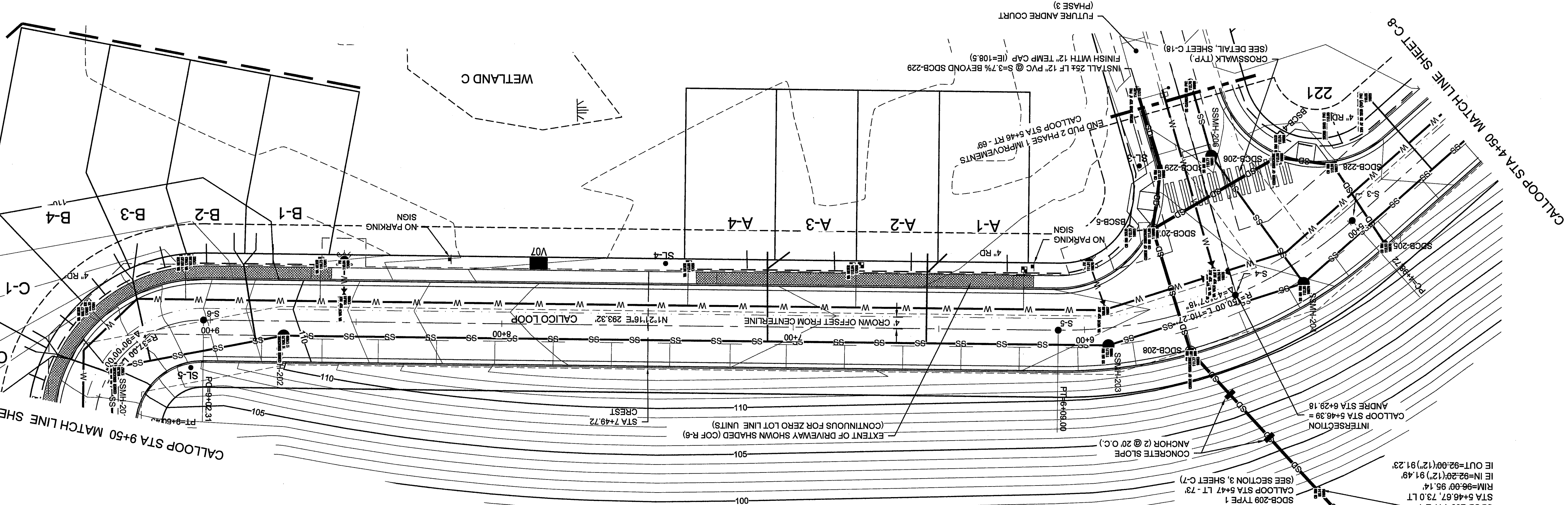
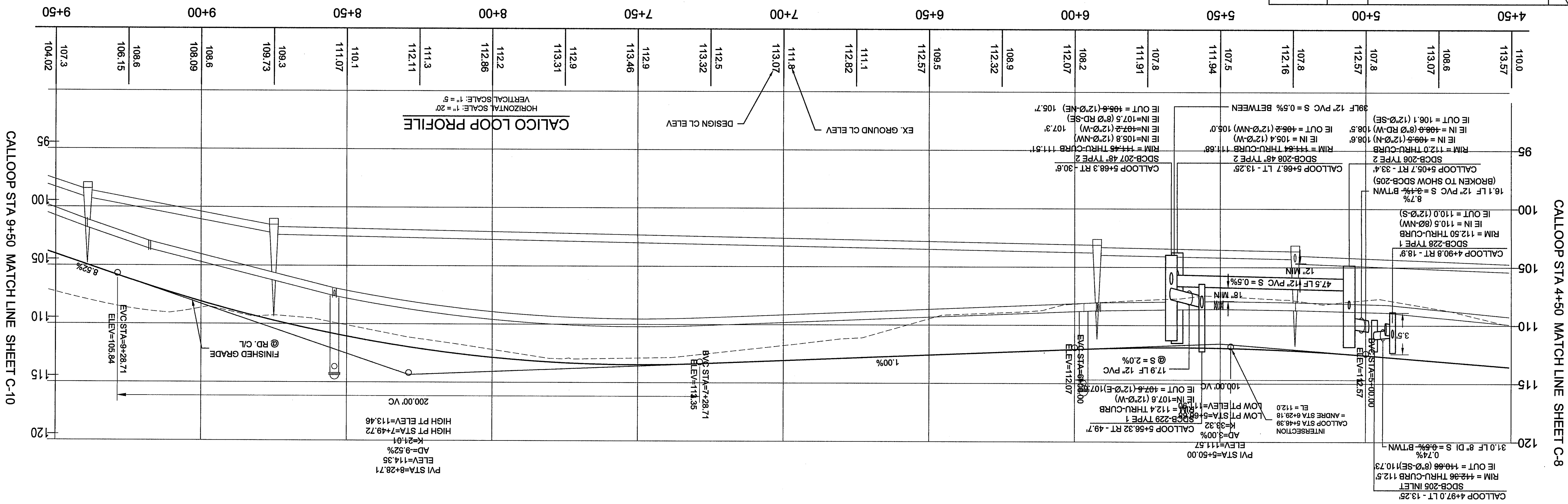
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DWG. NAME:	15007 C-3-C24 ST&SD 8-25-17
DESIGNED BY:	TBB
DRAWN BY:	NCS
CHECKED BY:	TBB

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
Torrance, CA 90501

CALICO LOOP STREET & STORM
STA 4+50 TO STA 9+50
MALLOY VILLAGE PUD 2

DATE: MARCH 2016
SCALE: H. 1" = 20'
V. 1" = 5'

DRAWING: C-9
SHEET: 10 OF 31



00624.010 w/hn k3

71-13-1



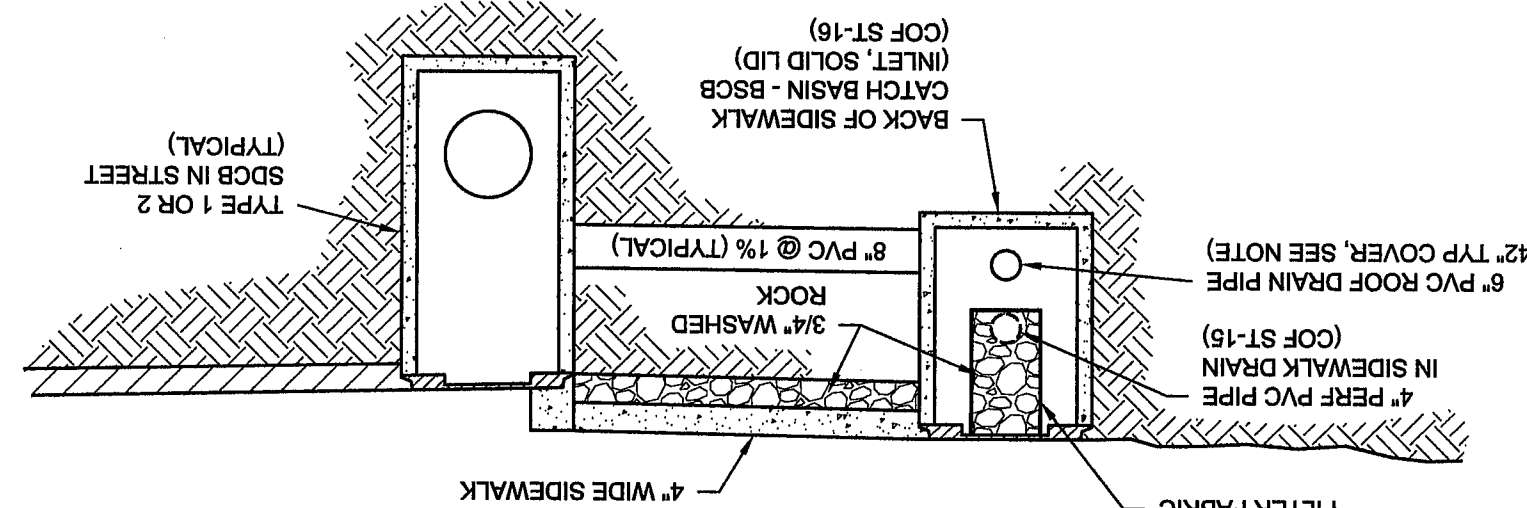
BENNETT
ENGINEERING, LLC

JOB NO.:	15007
DWG. NAME:	15007 C-3-C24 ST&SD 7-31-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

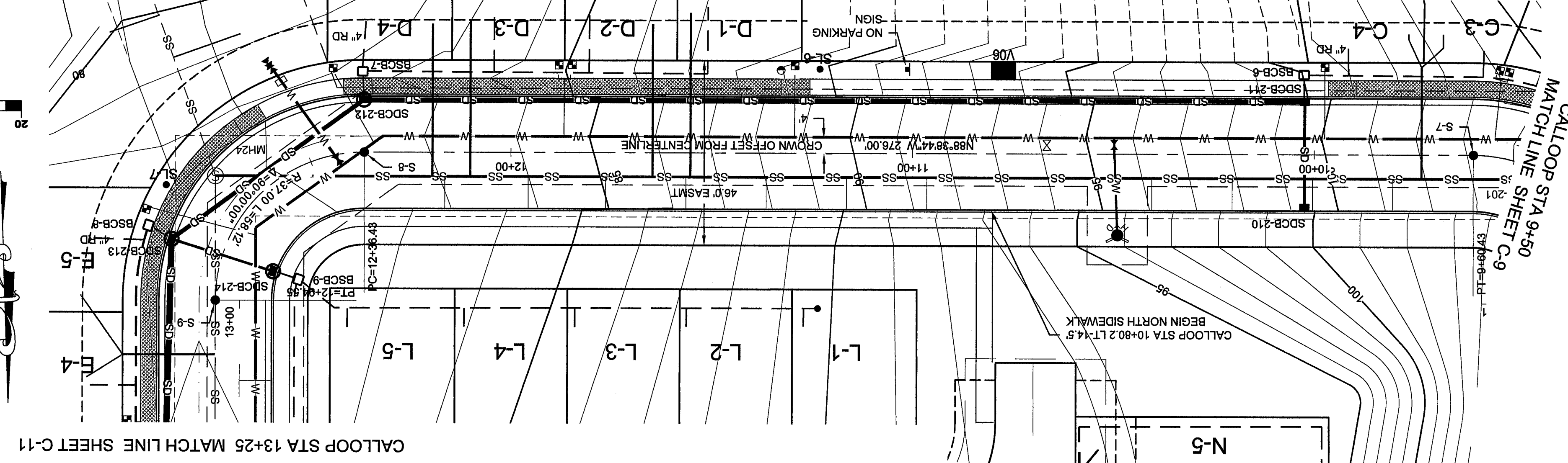
CALICO LOOP STREET & STORM
STA 9+50 TO STA 13+25
MALLOY VILLAGE PUD 2

DRAWING: C-10

SHEET: 11 OF 31



STREET CENTERLINE COORDINATES POINTS TABLE	PNTID	DESCRIPTION	STATION	NORTHING	EASTING
	S-1	PT	1+50.62	66657.25	1216827.53
	S-2	CALICO/ANDBRE INTX	2+41.56	66650.98	1216886.91
	S-3	PC	4+98.72	66631.61	1217054.84
	S-4	CALICO/ANDBRE INTX	5+46.38	66627.73	1217079.75
	S-5	PC	6+08.00	66622.11	1217091.19
	S-6	PT	9+02.31	66591.18	1217120.26
	S-7	CALICO/INTX	12+36.43	66589.10	1217120.57
	S-8	PC	12+94.55	66589.16	1217143.16
	S-9	CALICO/INTX	13+67.16	66589.10	1217143.87
	S-10	CALICO/INTX	15+91.55	66620.77	1217144.18
	S-11	CALICO/INTX	17+33.04	66634.86	1217144.62
	S-12	PC	18+22.47	66642.32	1217174.14
	S-13	PT	20+09.73	66657.23	1217233.78

[illegible]

00624.011 11/2/17 KJS

4-1-52



**CIVIL
ENVIRONMENTAL**
2324 JAMES STREET
BELLINGHAM, WA 98225
PH: (360) 671-2600
Cell: (360) 739-9844

JOB NO.:	15007
DWG. NAME:	15007 C-3-C24 ST&SD 7-31-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

CALICO LOOP STREET & STORM
STA 13+25 TO STA 18+50
MALLOY VILLAGE PUD 2

DATE: MARCH 2016
SCALE: H: 1" = 20'
V: 1" = 5'

DRAWING: C-11

SHEET: 12 OF 31



006624.012 14217 KB

NO.	REVISION	BY	DATE
0	ISSUED FOR REVIEW	NCS	3/09/16
1	REVISED PER COF COMMENTS	NCS	5/05/16
2	REVISED PER COF COMMENTS (2)	NCS	6/06/16
3	REVISED PER COF COMMENTS (3)	NCS	7/08/16
4	RECORD DRAWING SET	TEB	7/31/17



BENNETT
ENGINEERING, LLC

CIVIL
ENVIRONMENTAL
2324 JAMES STREET
BELLINGHAM, WA 98225
Cell: (360) 739-9844
P: (360) 671-2600

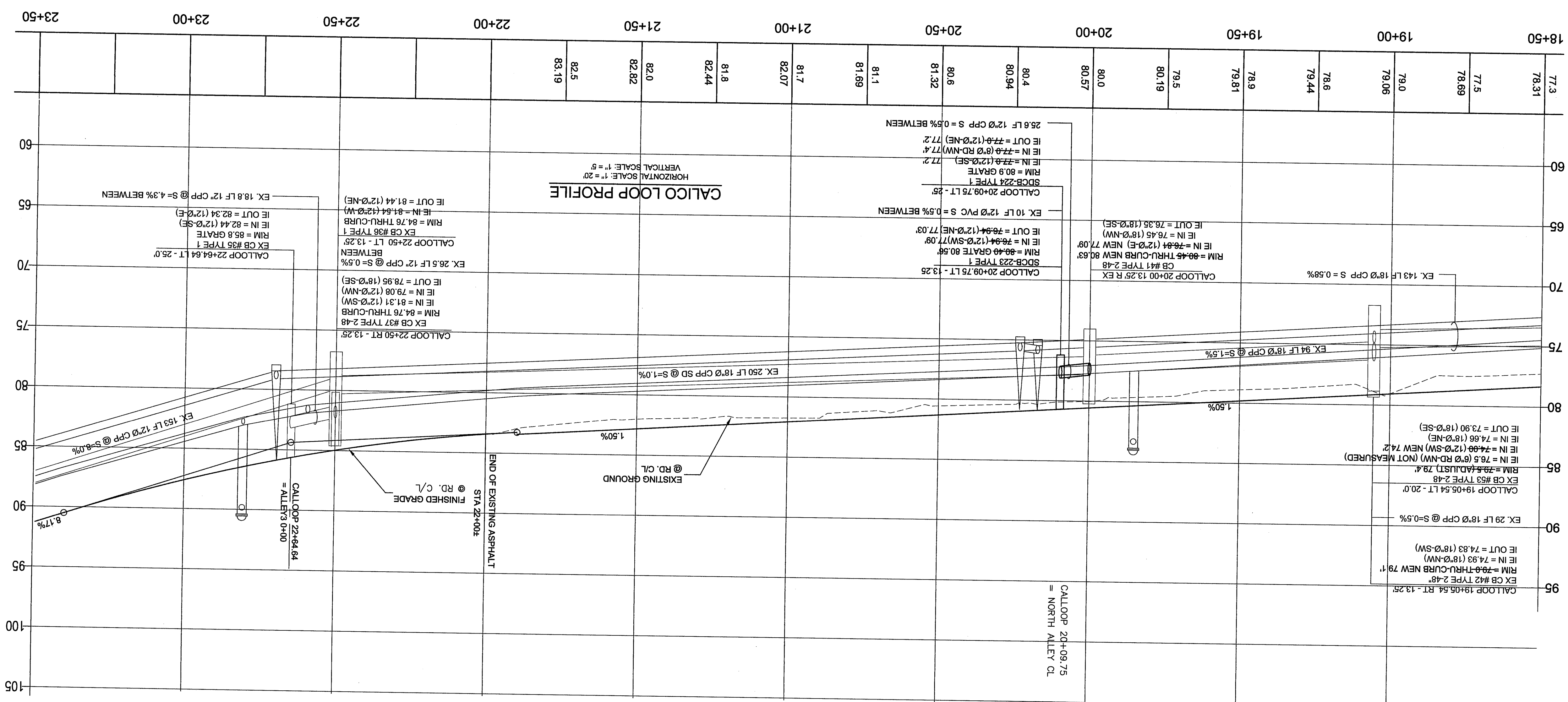
JOB NO.:	15007
DWG. NAME:	15007 C-3-C24 STA&SD 7-31-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

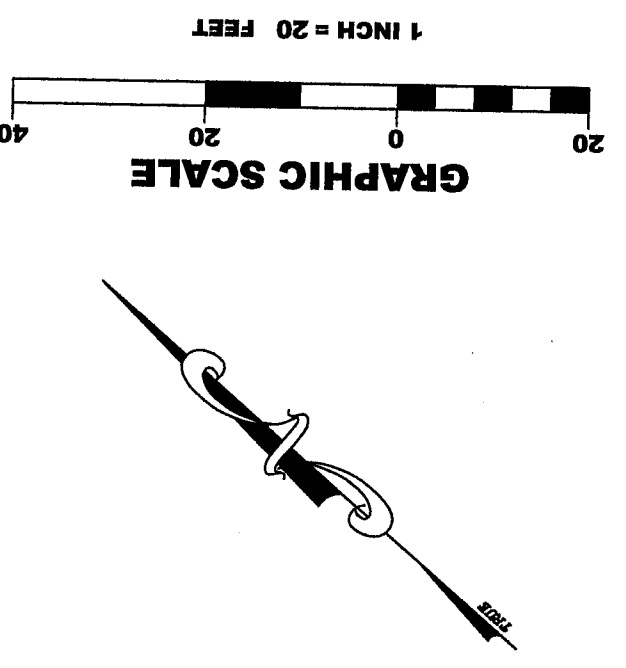
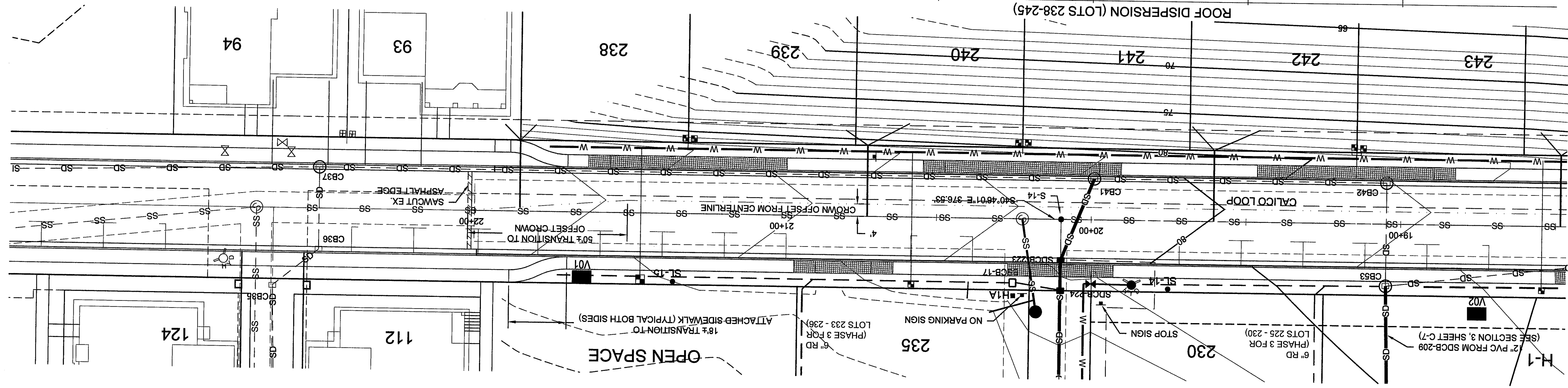
CALICO LOOP STREET & STORM
STA 18+50 TO STA 23+50
MALLOY VILLAGE PUD 2

DRAWING: C-12
SHEET: 13 OF 31
DATE: MARCH 2016
SCALE: H: 1" = 20' V: 1" = 5'

CALICO LOOP STA 18+50 MATCH LINE SHEET C-11

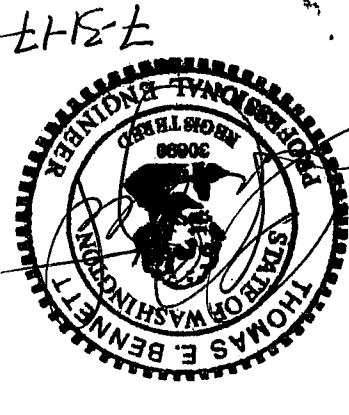


CALICO LOOP STA 18+50 MATCH LINE SHEET C-11



00624.013 1/16/18 KES

NO.	REVISION	BY	DATE
4	RECORD DRAWING SET	TEB	7/31/17
3	REVISED PER COF COMMENTS (3)	NCS	7/08/16
2	REVISED PER COF COMMENTS (2)	NCS	6/06/16
1	REVISED PER COF COMMENTS	NCS	5/05/16
0	ISSUED FOR REVIEW	NCS	3/09/16



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ENGINEERING, LLC

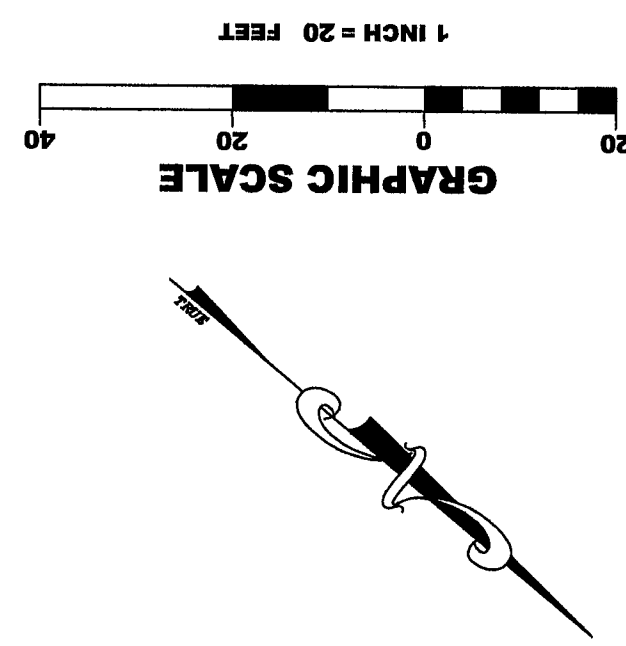
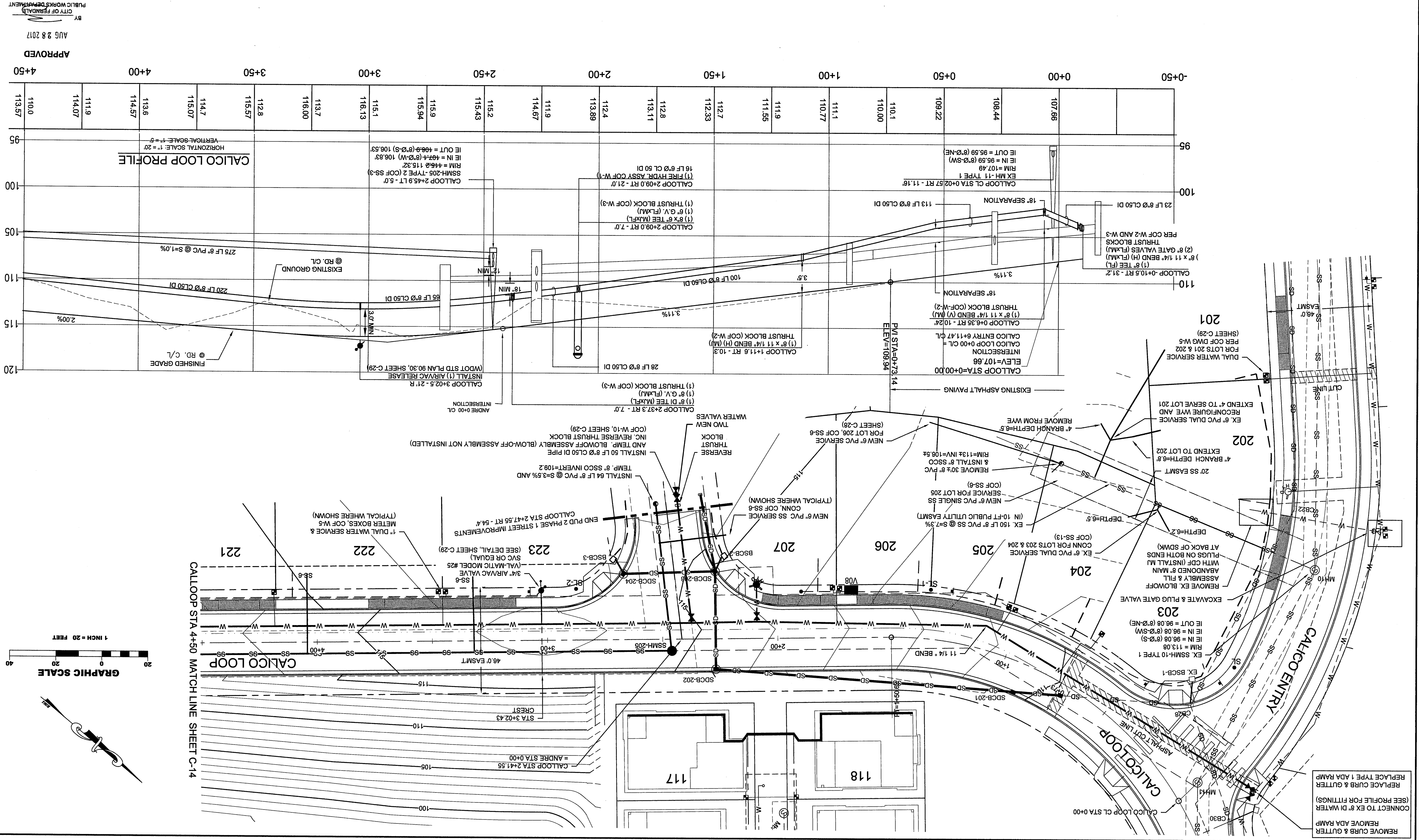
CIVIL
ENVIRONMENTAL
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

JOB NO.:	15007
DWG. NAME:	15007 C13-22 SS&WA 7-31-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

MALLOY VILLAGE LLC
24410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

DATE: MARCH 2016
SCALE: H: 1" = 20'
V: 1" = 5'

14 OF 31
SHEET:
C-13
DRAWING:



00024-014 yf617 kg

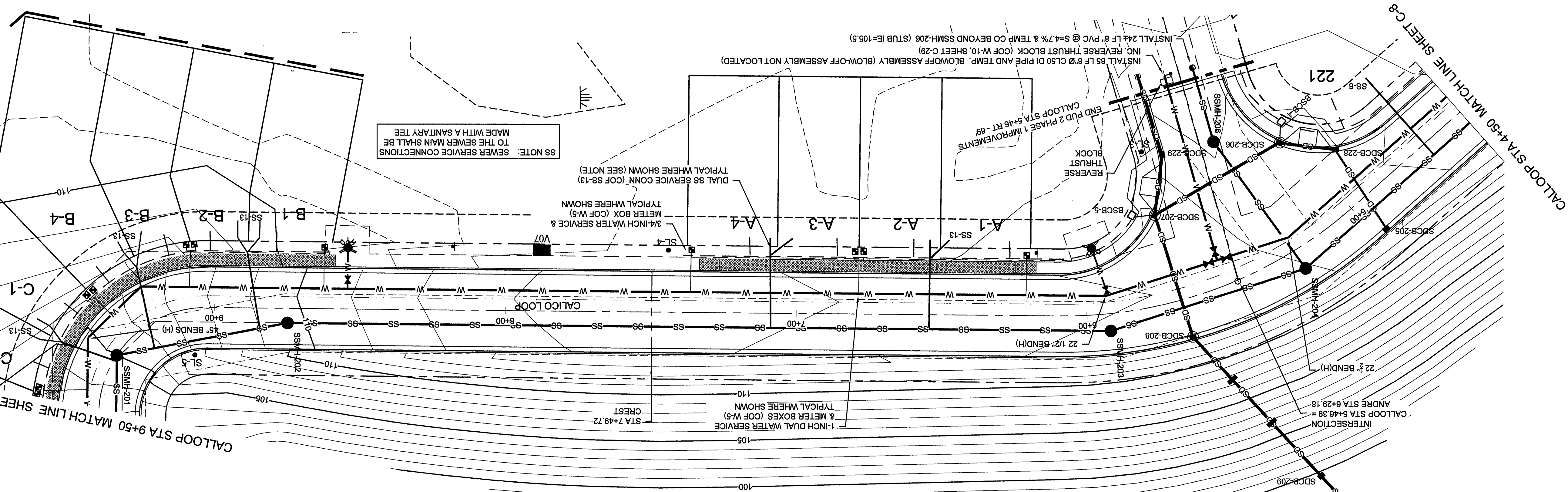
**CIVIL
ENVIRONMENTAL**
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

15007	JOB NO.:
DWG. NAME:	15007 C13-22 SS&WA 7-31-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

CALICO LOOP SEWER & WATER
STA 4+50 TO STA 9+50
MALLOY VILLAGE PUD 2

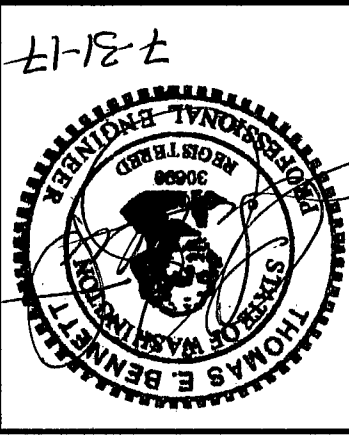
DRAWING: C-14

SHEET: 15 OF 31



006.24.015 11/21/17 KTB

NO.	REVISION	BY	DATE
1	ISSUED FOR REVIEW	NCS	3/09/16
2	REVISED PER COF COMMENTS	NCS	5/05/16
3	REVISED PER COF COMMENTS (2)	NCS	6/06/16
4	REVISED PER COF COMMENTS (3)	NCS	7/08/16
5	RECORD DRAWING SET	TEB	7/31/17



BENNETT
ENGINEERING, LLC

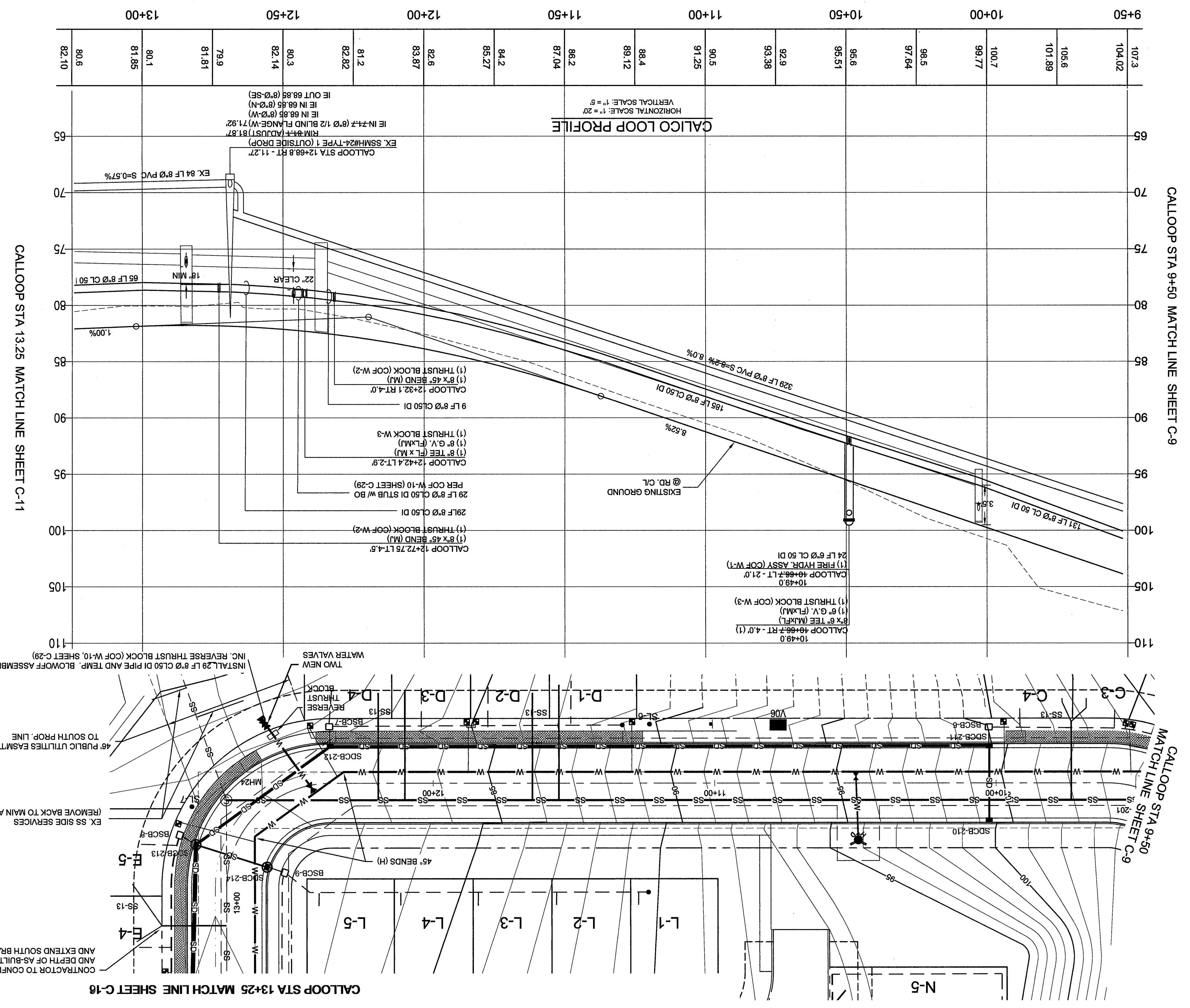
CIVIL
ENVIRONMENTAL
2324 JAMES STREET
BELLINGHAM, WA 98225
Cell: (360) 739-9844
Ph: (360) 671-2600

JOB NO.: 15007
DWG. NAME: 15007 C13-22 SS&WA 7-31-17
DESIGNED BY: TEB
DRAWN BY: NCS
CHECKED BY: TEB

MALLOY VILLAGE LLC
24410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

CALICO LOOP SEWER & WATER
STA 9+50 TO STA 13+25
MALLOY VILLAGE PUD 2

DRAWING: C-15
SHEET: 16 OF 31
DATE: MARCH 2016
SCALE: H: 1" = 20' V: 1" = 5'



APPROVED
AUG 28 2017
CITY OF FRESNO
PUBLIC WORKS DEPARTMENT

08/24/17 14/17 KB

7-31-72



**CIVIL
ENVIRONMENTAL**
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

MALLOY VILLAGE LLC
24410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

DRAWING: C-16 SHEET: 17 OF 31		DATE: MARCH 2016 SCALE: H: 1" = 20' V: 1" = 5' CALICO LOOP SEWER & WATER STA 13+25 TO STA 18+50 MALLOY VILLAGE PUD 2
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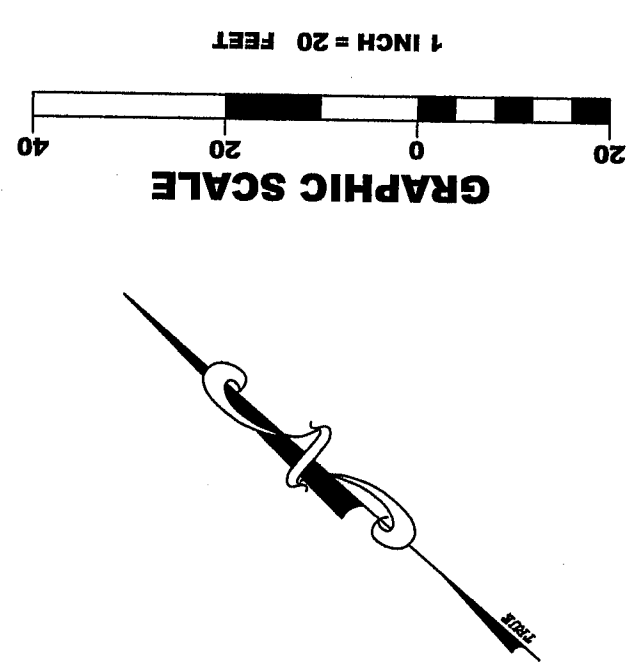


006.24.017 11/2/17 KB

**CIVIL
ENVIRONMENTAL**
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

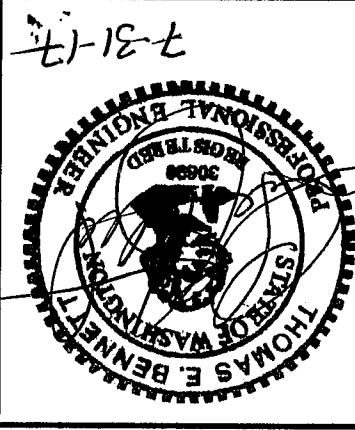
MALLOY VILLAGE LLC
24410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

DRAWING: C-17	SHEET: 18 OF 31	DATE: MARCH 2016 SCALE: H: 1" = 20' V: 1" = 5'
		CALICO LOOP SEWER & WATER STA 18+50 TO STA 23+50 MALLOY VILLAGE PUD 2



00624.018 142/17 KB

NO.	REVISION	BY	DATE
4	ISSUED FOR REVIEW	NCS	3/09/16
3	REVISED PER COF COMMENTS (2)	NCS	5/05/16
2	REVISED PER COF COMMENTS (3)	NCS	7/08/16
1	RECORD DRAWING SET	TEB	7/13/17



BENNETT
ENGINEERING, LLC

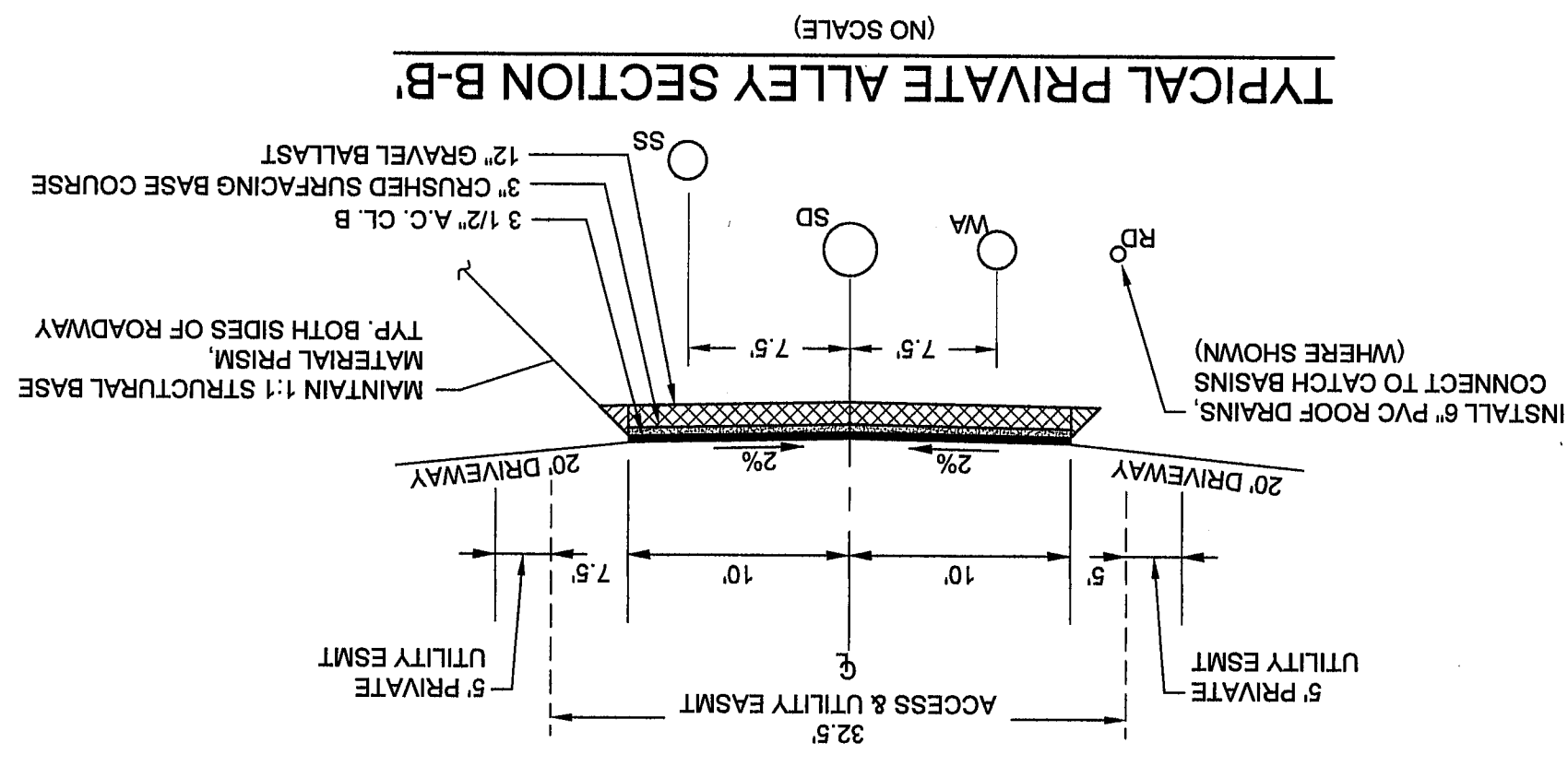
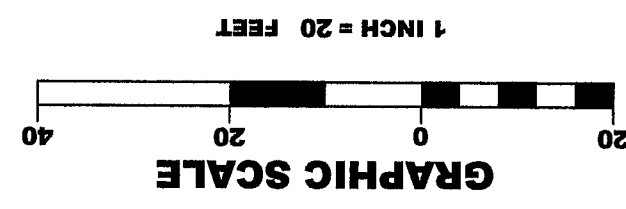
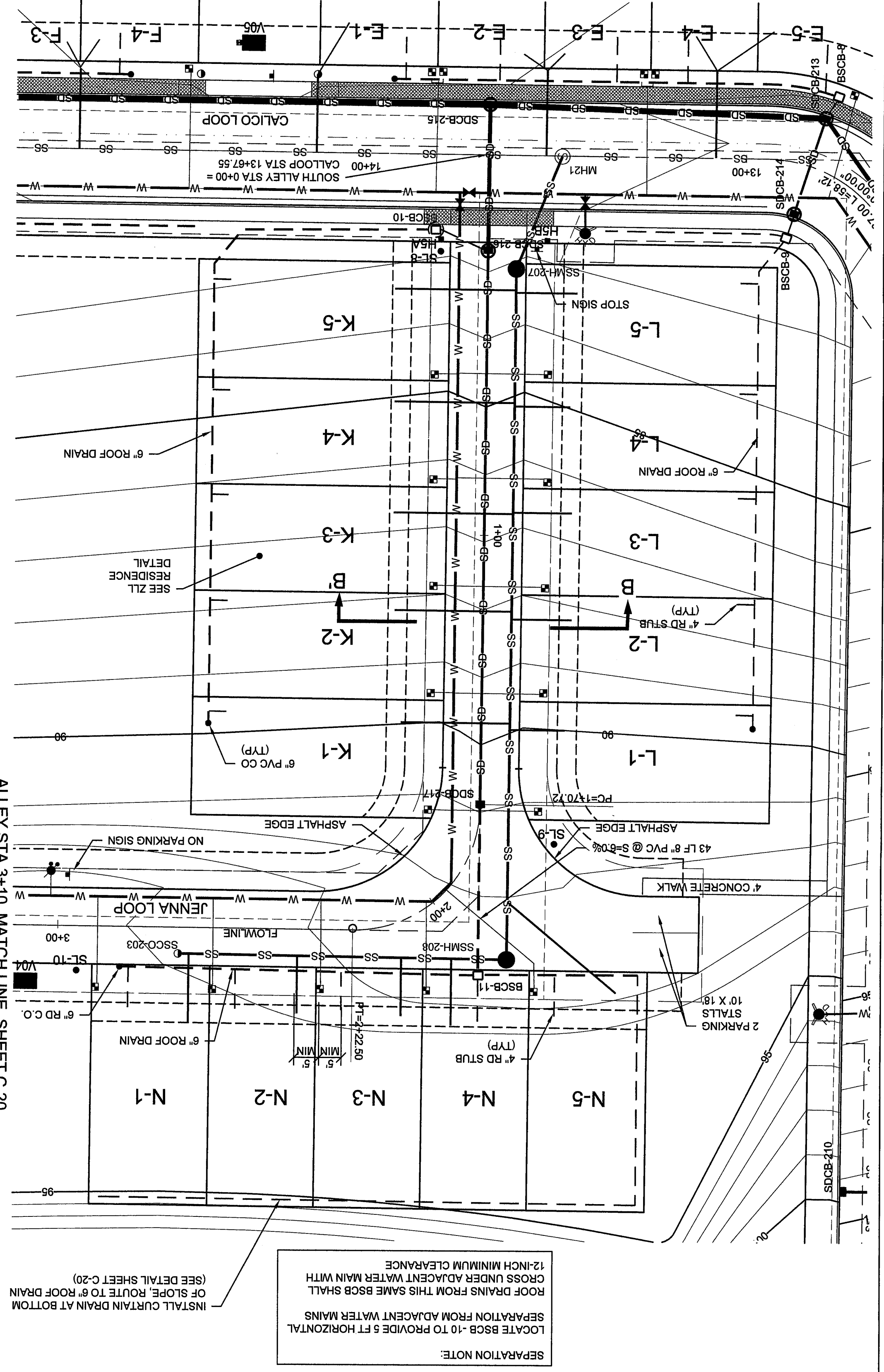
CIVIL
ENVIRONMENTAL
2324 JAMES STREET
BELLINGHAM, WA 98225
Cell: (360) 739-9844
Ph: (360) 671-2600

JOB NO.: 15007
DWG. NAME: 15007 C-3 C24 ST&SD 7-31-17
DESIGNED BY: TEB
DRAWN BY: NCS
CHECKED BY: TEB

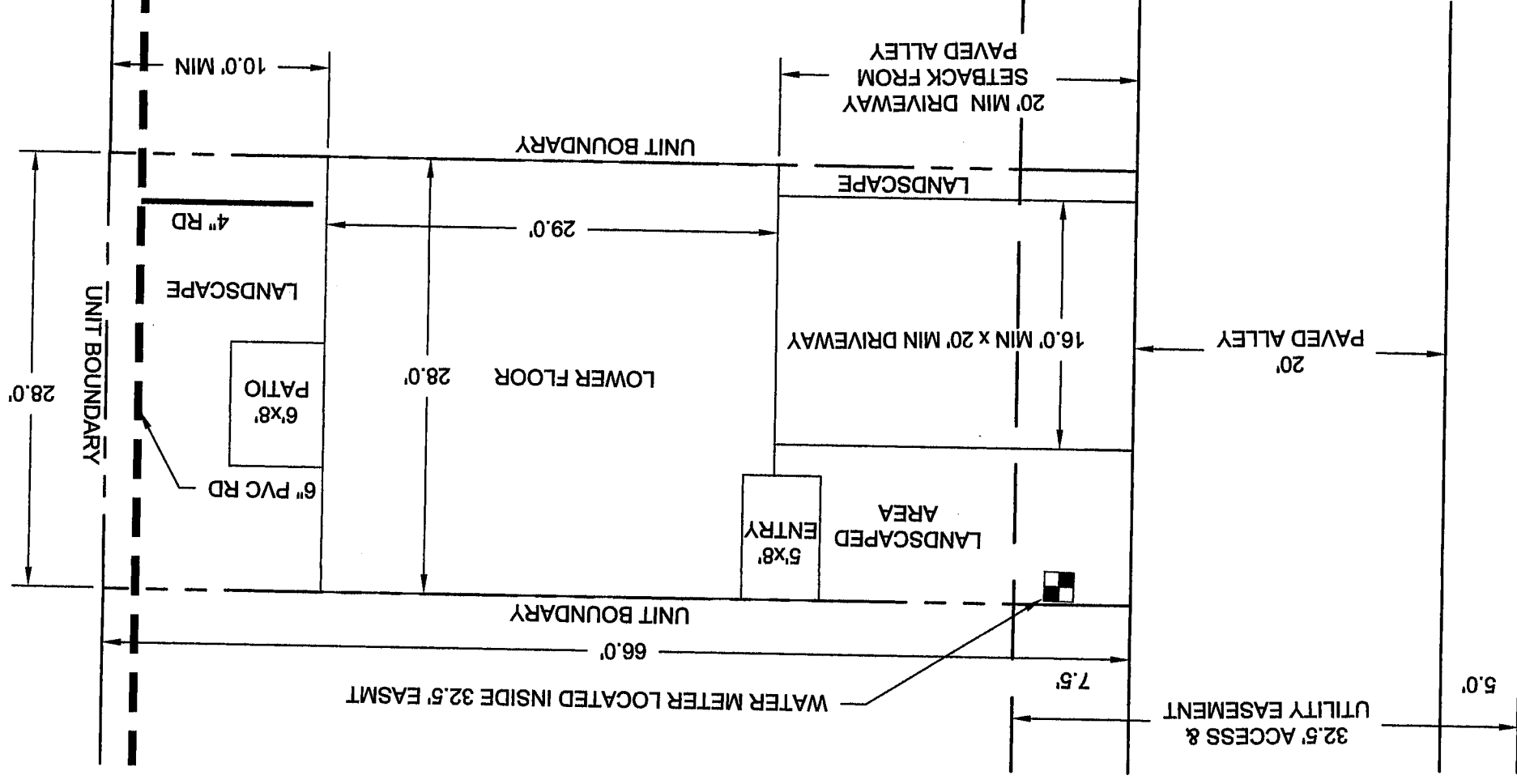
MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

DATE: MARCH 2016
SCALE: H: 1" = 20'
V: 1" = 5'
SOUTH ALLEY STREET & STORM
STA 0+00 TO STA 3+10
MALLOY VILLAGE PUD 2

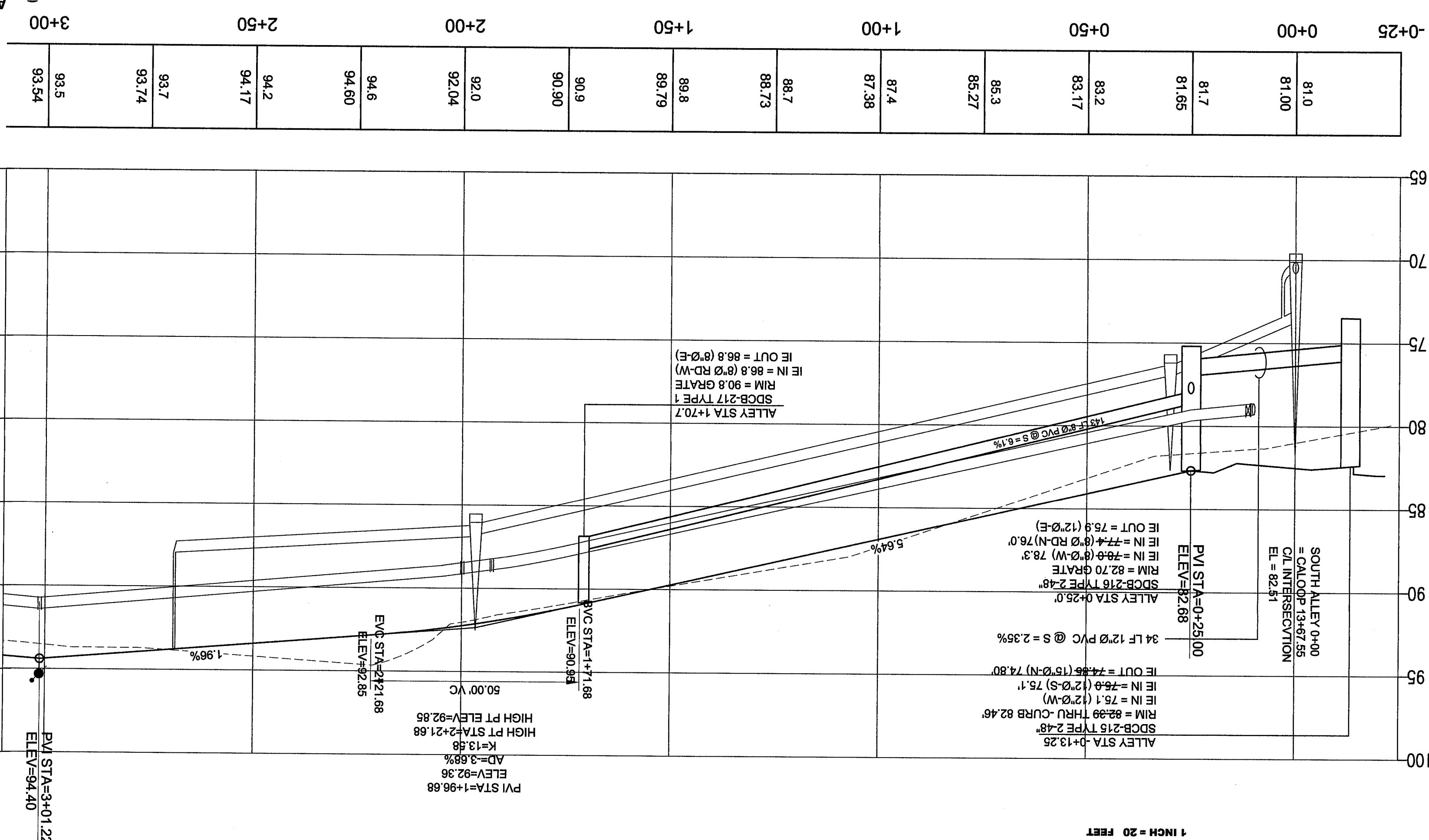
DRAWING: C-19
SHEET: 20 OF 31



TYPICAL ZERO LOT LINE RESIDENCE DETAIL
(PER GRANT MYERS DESIGN INC., JAN 2016)



SOUTH ALLEY PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'



APPROVED
AUG 28 2017
BY: [Signature]
CITY OF PERMITLE
PUBLIC WORKS DEPARTMENT

0024020 w/e/lr kg

NO.	REVISION	BY	DATE
4	ISSUED FOR REVIEW	NCS	3/08/16
3	REVISED PER COF COMMENTS (2)	NCS	5/05/16
2	REVISED PER COF COMMENTS (3)	NCS	6/08/16
1	RECORD DRAWING SET	TEB	7/31/17



BENNETT
ENGINEERING, LLC

CIVIL
ENVIRONMENTAL
2324 JAMES STREET
BELLINGHAM, WA 98225
Cell: (360) 739-9844
P: (360) 671-2600

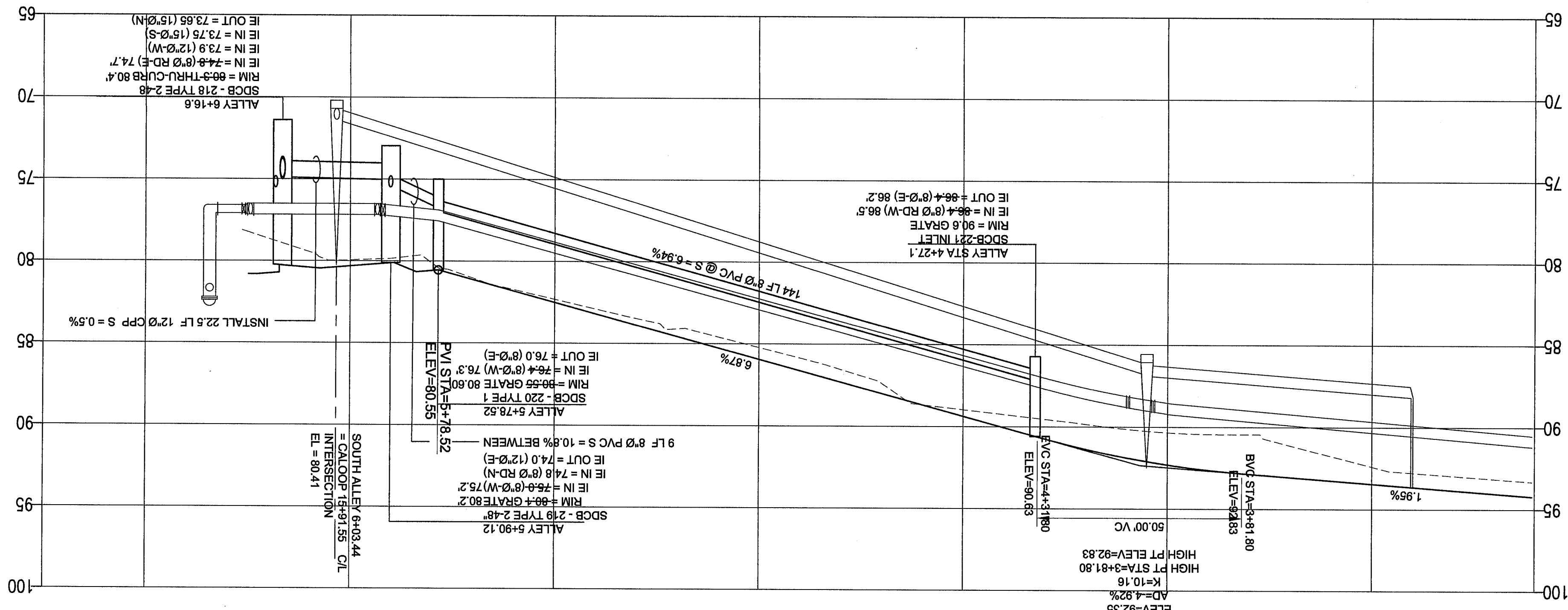
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DWG. NAME:	15007 C-3-C24 ST&SD 7-31-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
Torrance, CA 90501

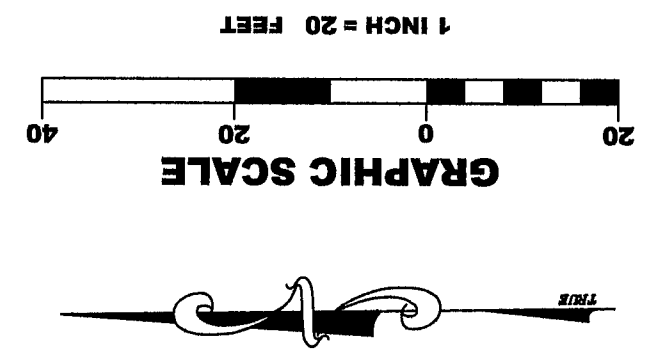
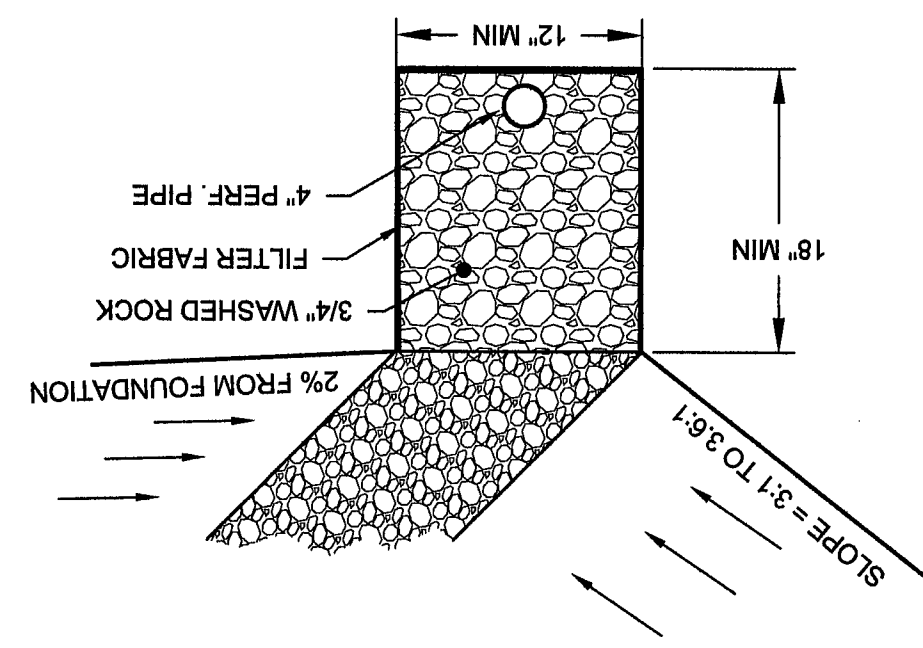
DATE: MARCH 2016
SCALE: H. 1" = 20'
V. 1" = 5'

DRAWING: C-20
SHEET: 21 OF 31

3+50	93.1	93.06	92.4	92.41	90.8	90.80	90.3	90.34	89.7	89.69	89.0	88.98	86.9	86.92	85.2	85.22	83.7	83.74	80.6	80.61	80.0	79.96	78.2	78.24	6+75
------	------	-------	------	-------	------	-------	------	-------	------	-------	------	-------	------	-------	------	-------	------	-------	------	-------	------	-------	------	-------	------

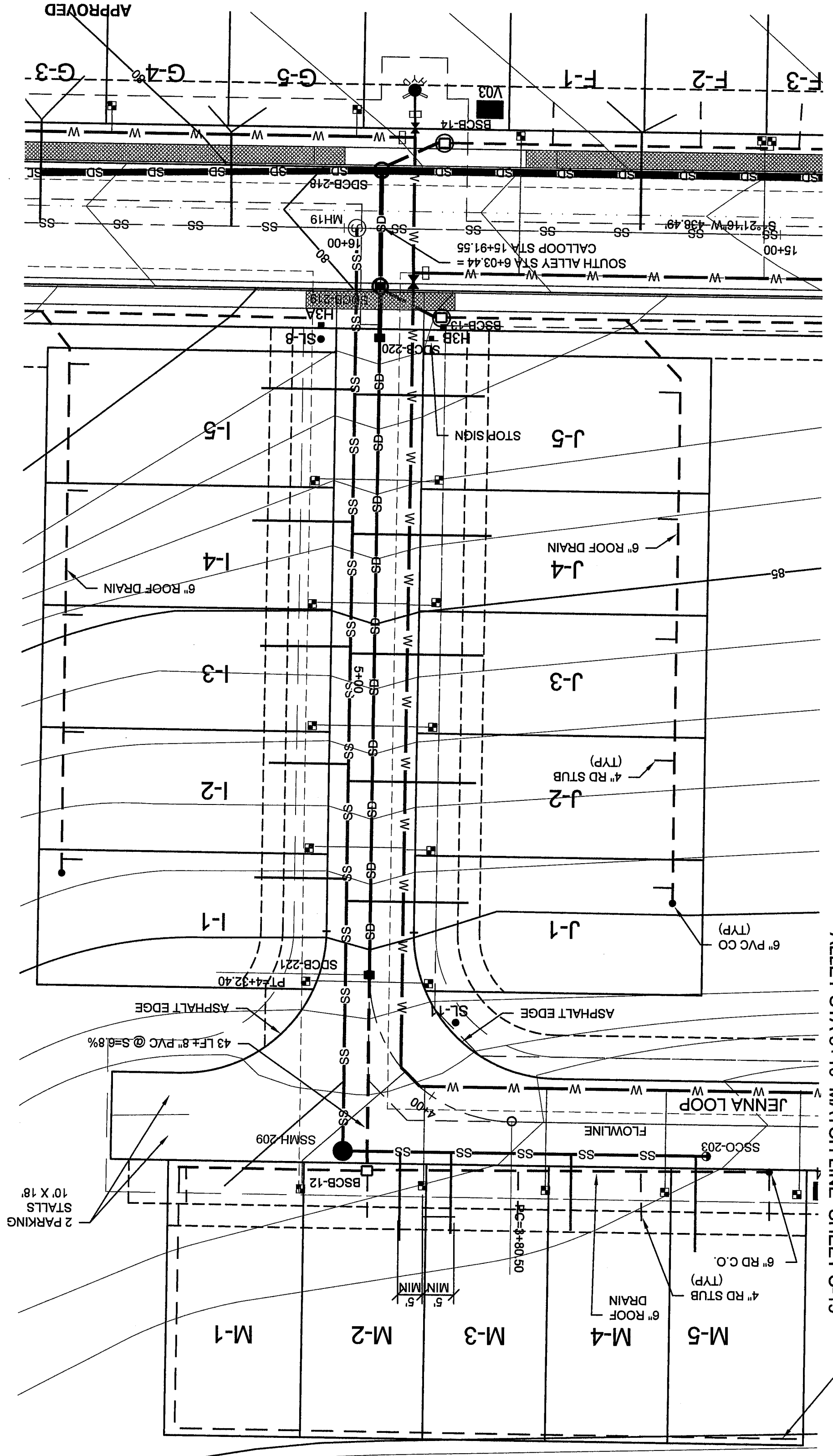


TYPICAL BOTTOM OF SLOPE CURTAIN DRAIN
(SEE SHEET C-30 FOR MATERIAL SPECS)
NOT TO SCALE



SEPARATION NOTE:
LOCATE BSCB-13 & BSCB-14 TO PROVIDE 5 FT
HORIZONTAL SEPARATION FROM ADJACENT WATER MAINS
ROOF DRAINS FROM THESE SAME BSCBs SHALL CROSS
UNDER ADJACENT WATER MAINS WITH 12-INCH MINIMUM
CLEARANCE

INSTALL CURTAIN DRAIN AT BOTTOM
OF SLOPE. ROUTE TO 6\"/>

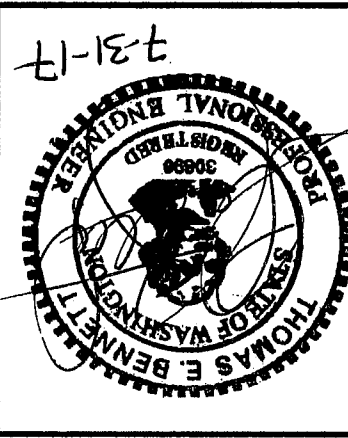


SOUTH ALLEY PROFILE
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 5'

APPROVED
AUG 28 2017
BY: CITY OF FERRIS
PUBLIC WORKS DEPARTMENT

00024.021 1/21/17 K3

NO.	REVISION	BY	DATE
1	ISSUED FOR REVIEW	NCS	3/09/16
2	REVISED PER COF COMMENTS	NCS	5/05/16
3	REVISED PER COF COMMENTS (2)	NCS	6/08/16
4	REVISED PER COF COMMENTS (3)	NCS	7/08/16
5	RECORD DRAWING SET	TEB	7/13/17



ENGINEERING, LLC

BENNETT

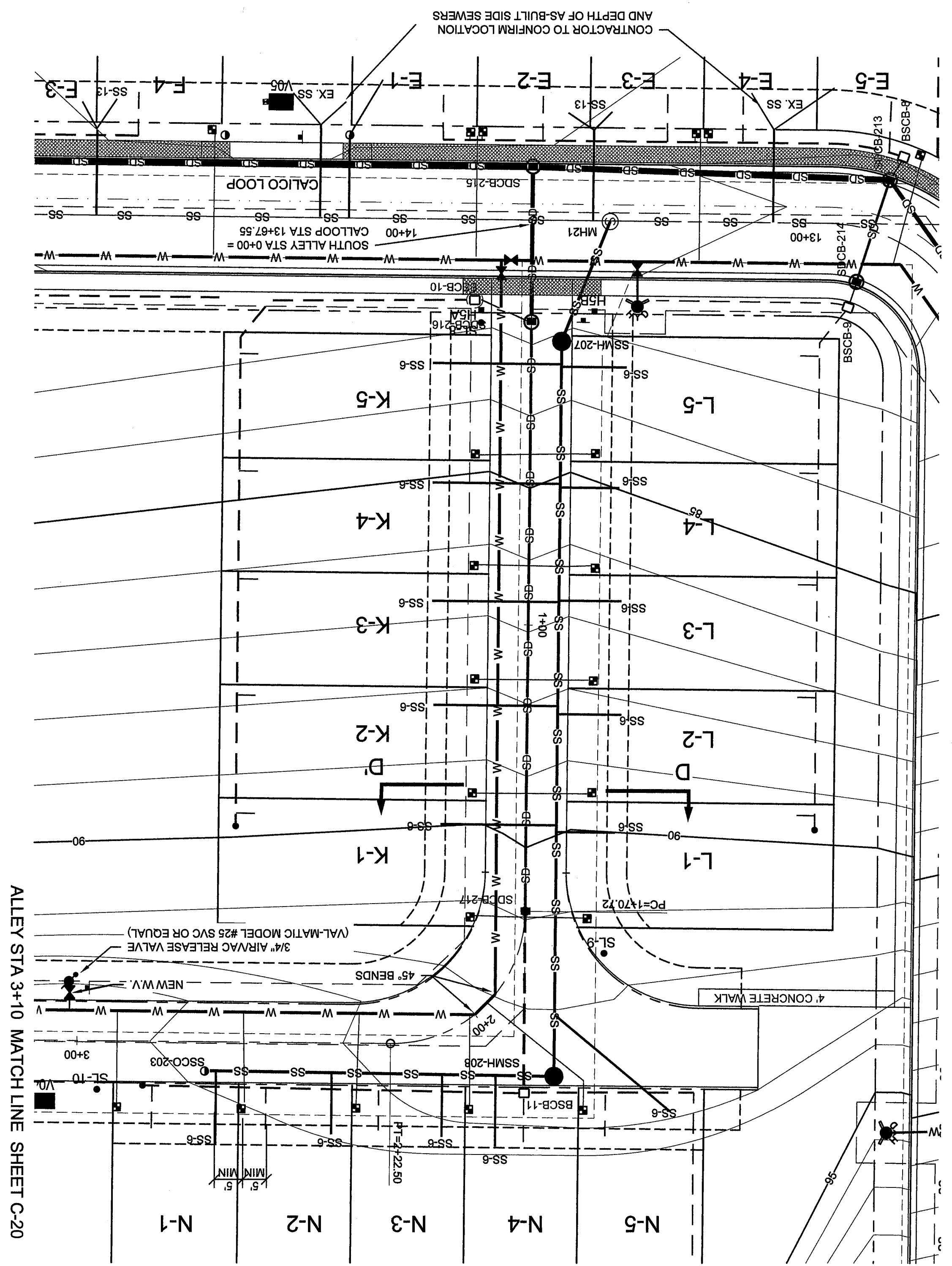
CIVIL
 ENVIRONMENTAL
 2324 JAMES STREET
 BELLINGHAM, WA 98225
 Cell: (360) 739-9844
 Pn: (360) 671-2600

JOB NO.:	15007
DWG. NAME:	15007 C13-22 SS&WA 8-25-17
DESIGNED BY:	TEB
DRAWN BY:	NCS
CHECKED BY:	TEB

MALLOY VILLAGE LLC
 24410 HAWTHORNE BLVD. STE 5
 TORRANCE, CA 90501

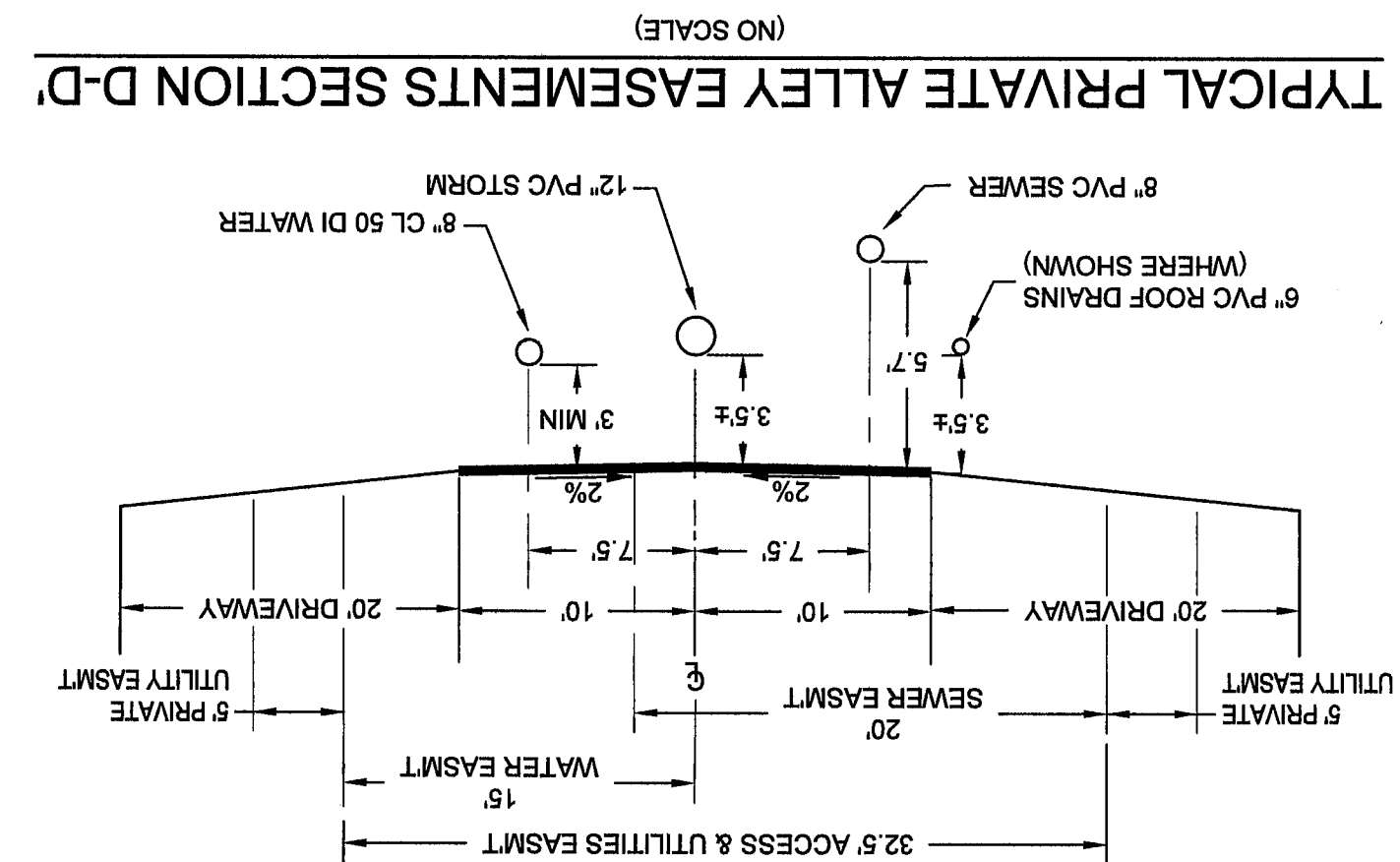
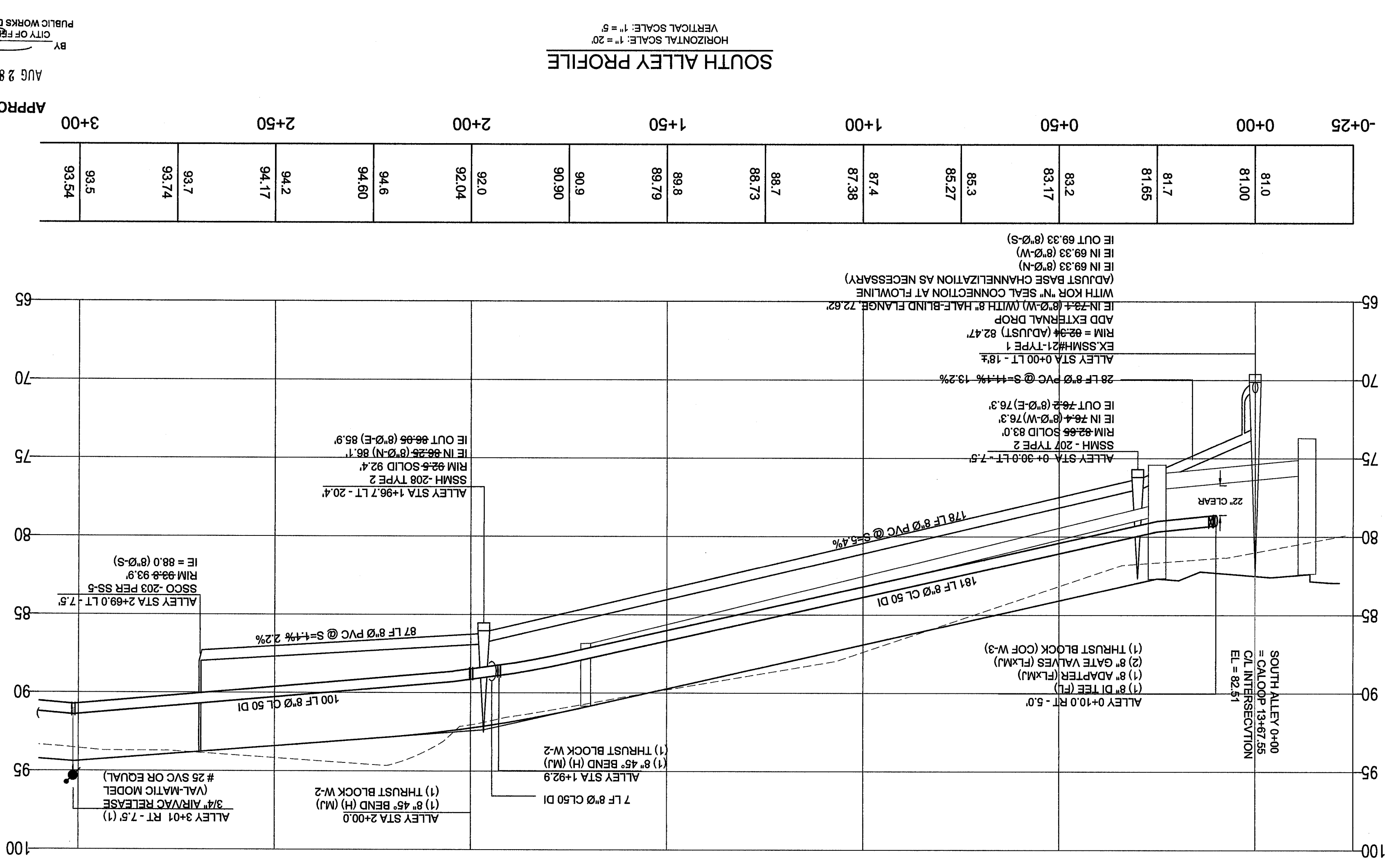
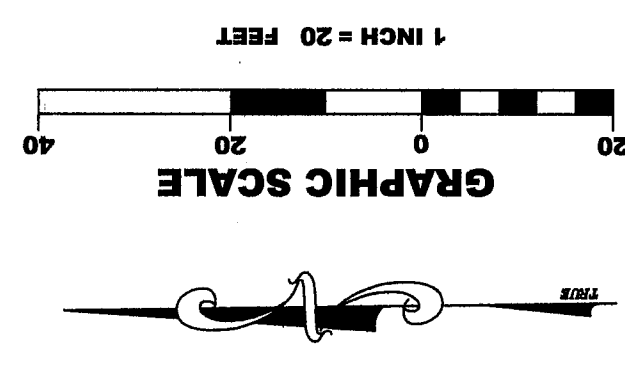
SOUTH ALLEY SEWER & WATER
 STA 0+00 TO STA 3+10
 MALLOY VILLAGE PUD 2

DRAWING: C-21
 SHEET: 22 OF 31



SEPARATION NOTE:
 LOCATE BSCB-10 TO PROVIDE 5 FT HORIZONTAL SEPARATION FROM ADJACENT WATER MAINS. ROOF DRAINS FROM THIS SAME BSCB SHALL CROSS UNDER ADJACENT WATER MAIN WITH 12-INCH MINIMUM CLEARANCE.

SEWER NOTE:
 INSTALL SANITARY TEE AT SEWER MAIN TO ACHIEVE PERPENDICULAR CROSSING OF SEWER MAIN UNDER WATER AND STORM.
 TYPICAL SEWER MAIN OFFSET FROM SD IS 7.5' FROM STA 4+27 TO STA 6+03.
 TO STA 4+27, OFFSET DECREASES TO 5.0' FROM STA 4+27 TO STA 6+03.



APPROVED
 AUG 28 2017
 BY: CITY OF FERNDALE
 PUBLIC WORKS DEPARTMENT

SOUTH ALLEY PROFILE
 HORIZONTAL SCALE: 1" = 20'
 VERTICAL SCALE: 1" = 5'

0024.022 W/L/KS

**CIVIL
ENVIRONMENTAL**
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

MALLOY VILLAGE LLC
24410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

DATE: MARCH 2016 SCALE: H: 1" = 20' V: 1" = 5'		23 OF 31
SOUTH ALLEY SEWER & WATER STA 3+10 TO STA 6+50 MALLOY VILLAGE PUD 2		SHEET:
DRAWING: C-22		



006.24.023 11/2/17 KS

7-3-17

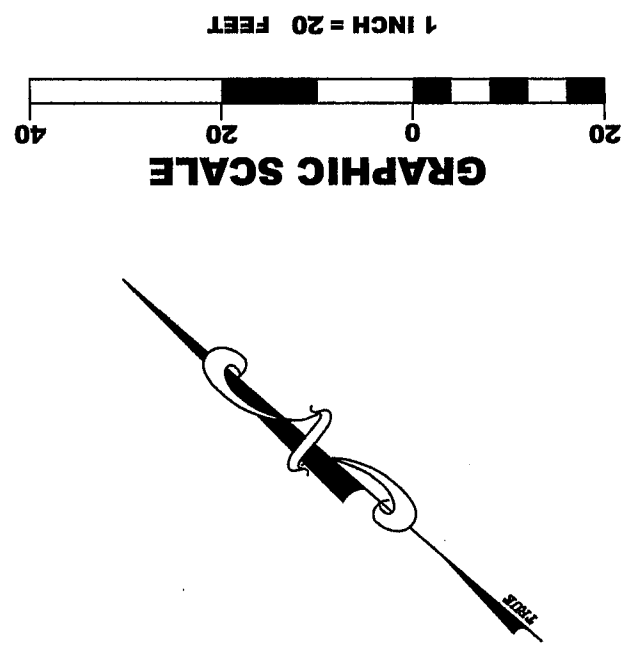
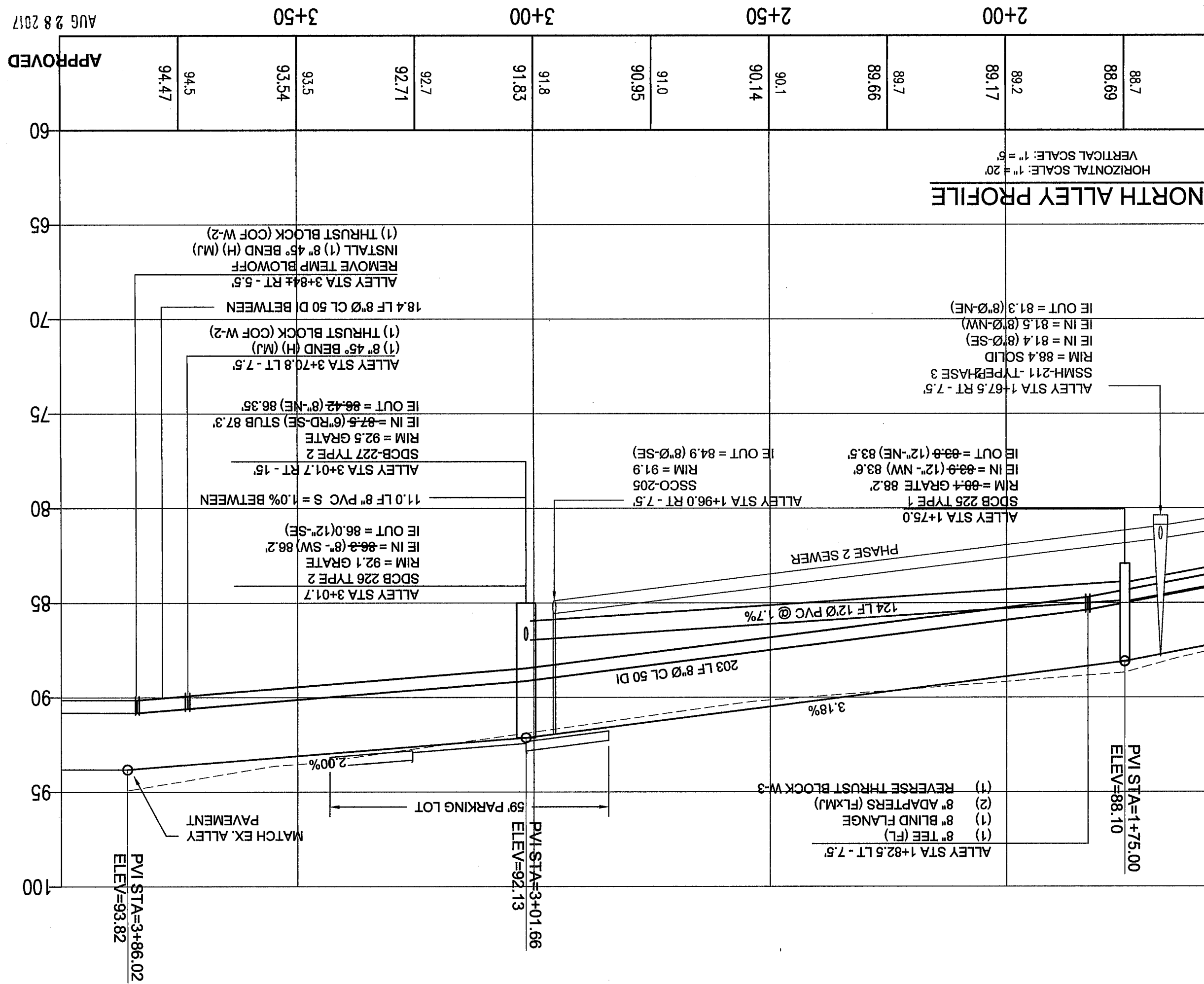


**CIVIL
ENVIRONMENTAL**
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD, STE 5
TORRANCE, CA 90501

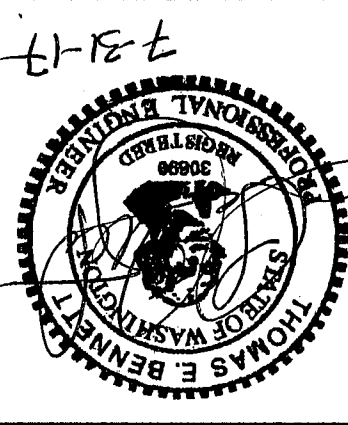
DATE: MARCH 2016 H: 1" = 20' V: 1" = 5'

BY CITY OF FRANKLIN
PUBLIC WORKS DEPARTMENT



DD624.D24 11/2/17 KJB

NO.	REVISION	BY	DATE
0	ISSUED FOR REVIEW	NCS	3/09/16
1	REVISED PER COF COMMENTS	NCS	5/05/16
2	REVISED PER COF COMMENTS (2)	NCS	6/08/16
3	REVISED PER COF COMMENTS (3)	NCS	7/08/16
4	RECORD DRAWING SET	TEB	7/31/17



BENNETT
ENGINEERING, LLC

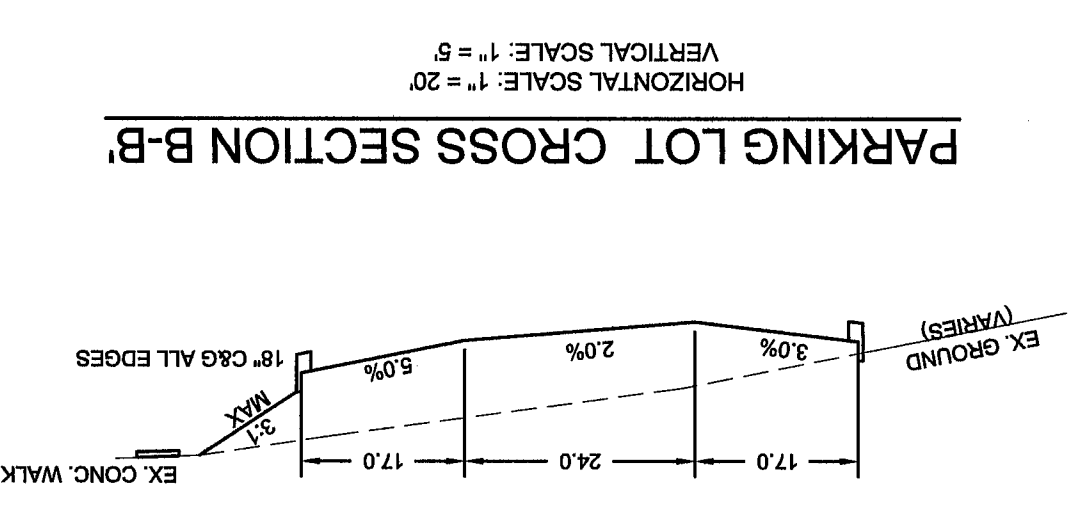
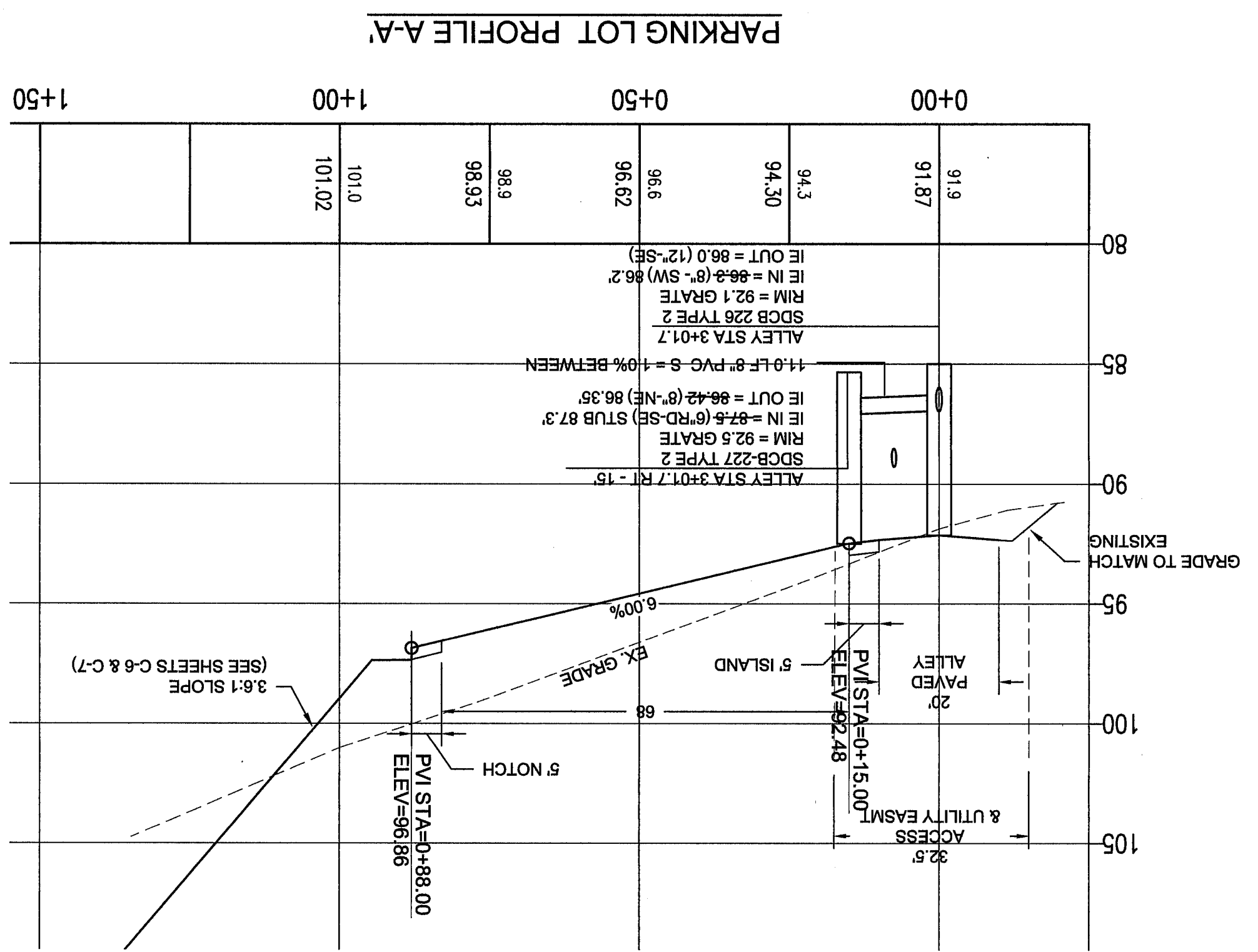
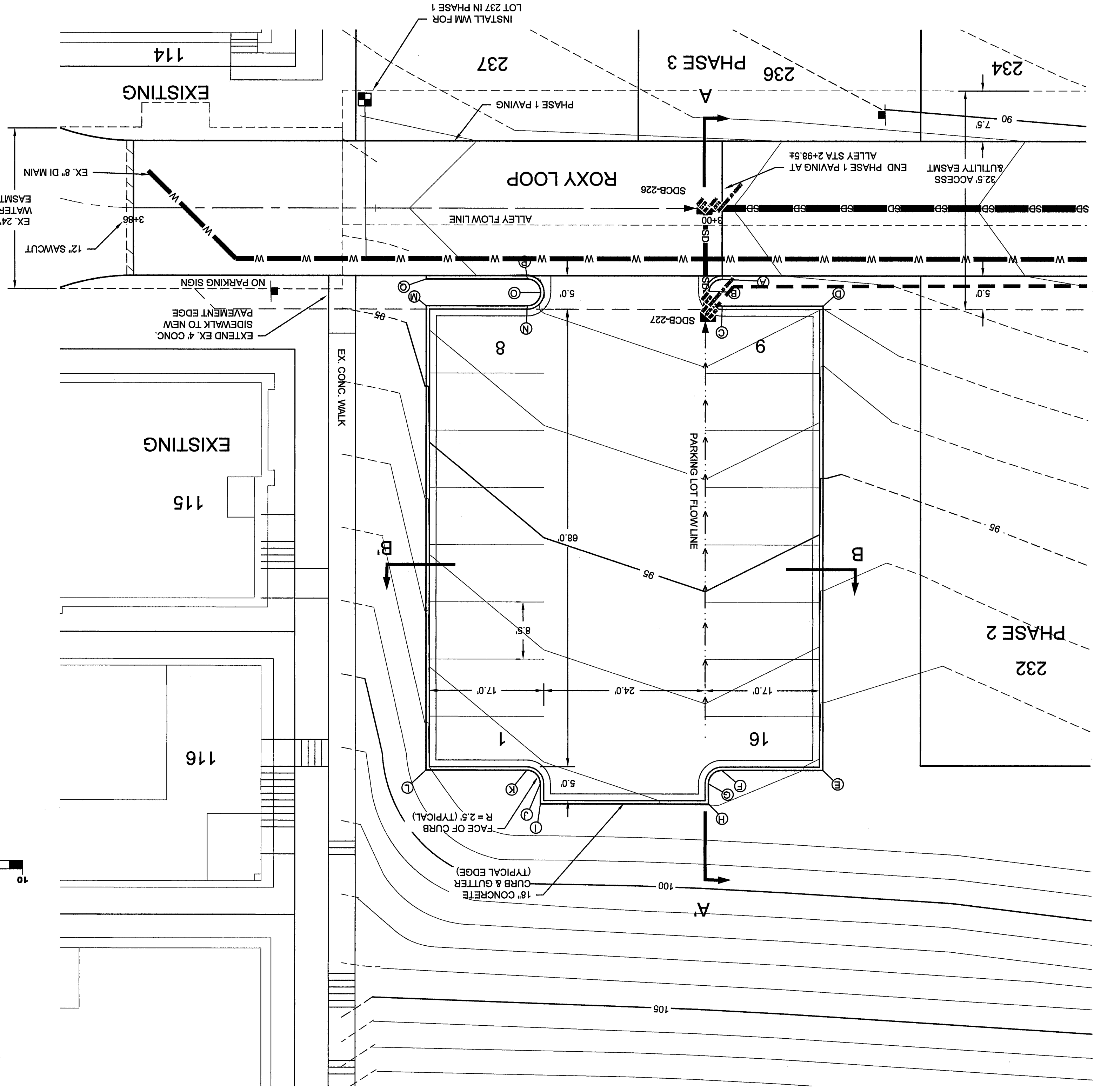
CIVIL
ENVIRONMENTAL
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

JOB NO.: 15007
DWG. NAME: 15007 C-3-C24 ST&SD 7-31-17
DESIGNED BY: TEB
DRAWN BY: NCS
CHECKED BY: TEB

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

DATE: MARCH 2016
SCALE: H: AS NOTED
V: 1" = 5'

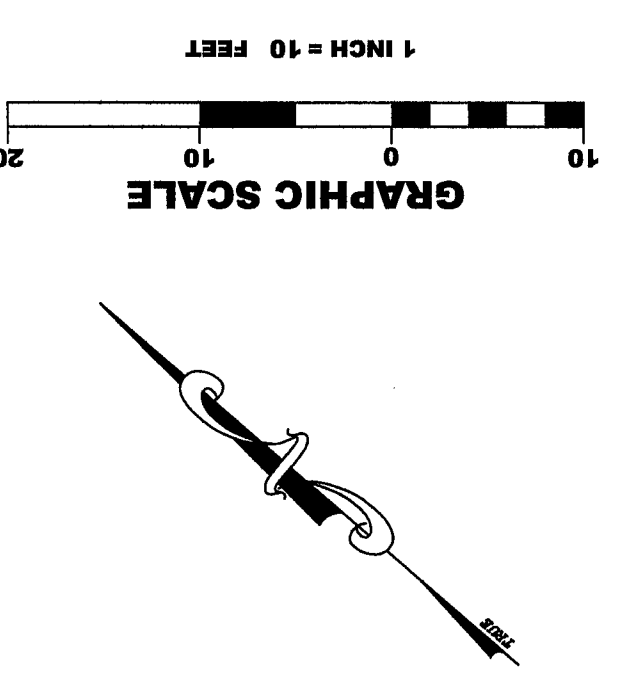
DRAWING: C-24
SHEET: 25 OF 31



PARKING LOT COORDINATE POINTS TABLE

ALL ELEVATIONS ARE TOP & BACK OF CURB

PNT ID	DESCRIPTION	ELEV	NORTHING	EASTING
A	POC RADIUS = 2.0'	82.79	886545.87	1217071.96
B	CURB RETURN MP	82.80	886545.88	1217069.13
C	POT RADIUS = 2.0'	83.06	886543.06	1217078.72
D	SOUTH CORNER	83.50	886531.70	1217078.72
E	SOUTH CORNER	83.56	886486.64	1217028.46
F	POT RADIUS = 2.0'	87.12	886498.00	1217016.67
G	POT RADIUS = 2.0'	87.22	886498.21	1217013.85
H	SOUTH CORNER	87.36	886498.25	1217011.57
I	WEST CORNER	87.84	886515.19	1216995.25
J	POT RADIUS = 2.0'	87.89	886517.52	1216997.52
K	POT RADIUS = 2.0'	87.87	886519.97	1216997.73
L	WEST CORNER	88.37	886531.33	1216987.94
M	NORTH CORNER	84.22	886576.38	1217040.19
N	POC RADIUS = 2.0'	83.60	886565.02	1217049.89
O	CURB RETURN MP	83.39	886564.82	1217052.81
P	POT RADIUS = 2.0'	83.36	886567.64	1217053.02
Q	END VERT. CURB	83.66	886579.00	1217043.22



APPROVED
AUG 28 2017
CITY OF TORRANCE
PUBLIC WORKS DEPARTMENT

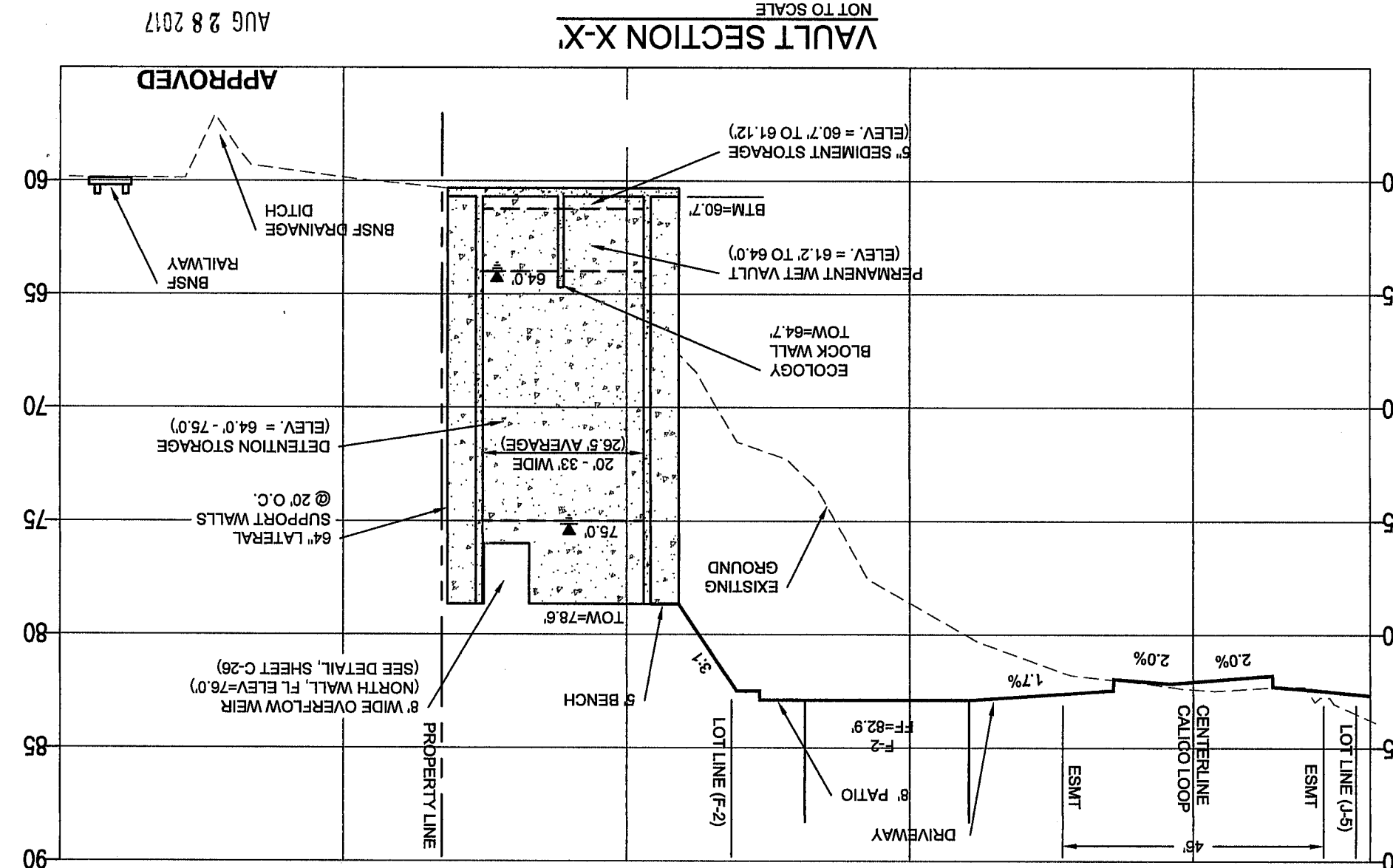
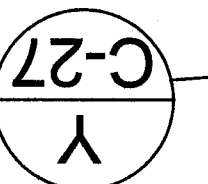
00624025 11/4/17 LRG

**CIVIL
ENVIRONMENTAL**
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Call: (360) 739-9844

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

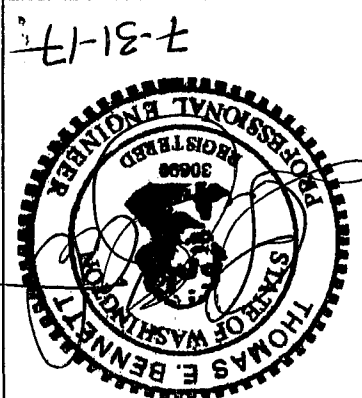
DATE: MARCH 2016 H: 1"=80' V: N/A

SHEET:

[illegible]

00624.026 14217 KB

NO.	REVISION	BY	DATE
4	RECORD DRAWING SET	TEB	7/31/17
3	REVISED PER COF COMMENTS (3)	NCS	7/10/16
2	REVISED PER COF COMMENTS (2)	NCS	6/06/16
1	REVISED PER COF COMMENTS	NCS	5/05/16
0	ISSUED FOR REVIEW	NCS	3/08/16



BENNETT
ENGINEERING, LLC

CIVIL
ENVIRONMENTAL

2324 JAMES STREET
BELLINGHAM, WA 98225
Cell: (360) 739-9844
Ph: (360) 671-2600

JOB NO.:	15007
DWG. NAME:	15007-C26-C26-STORM-7-31-17
DESIGNED BY:	TEB
DRAWN BY:	JSM
CHECKED BY:	TEB

MALLOY VILLAGE LLC
22410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

STORMWATER DETAILS & NOTES
MALLOY VILLAGE PUD 2
FERNDALE WASHINGTON

DATE:	MARCH 2016
SCALE:	N/A
SHEET:	27 OF 31
DRAWING:	C-26

IMPERVIOUS SURFACING SUMMARY			
MALLORY VILLAGE PHD 2			
LOT #	AREA (SF)	IMPERVIOUS	TOTAL
201	1620	229	1620
D-1	1280		
202	1800	230	1620
D-2	1280		
203	1800	231	1620
D-3	1280		
204	1800	232	1620
D-4	1280		
205	1620	233	1620
E-1	1280		
206	1620	234	1620
E-2	1280		
207	1620	235	1620
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208	1620	236	1620
E-4	1280		
209	1620	237	1620
E-5	1280		
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F-1	1280		
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G-3	1280		
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H-4	1280		
223	1620	251	1620
H-5	1280		
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BY	TEB
DATE	7/31/17
REVISOR	REVISOR PER COF COMMENTS (3)
BY	NCS
DATE	7/28/16
REVISOR	REVISOR PER COF COMMENTS (2)
BY	NCS
DATE	6/06/16
REVISOR	REVISOR PER COF COMMENTS
BY	NCS
DATE	5/05/16
REVISOR	ISSUED FOR REVIEW
BY	NCS
DATE	3/09/16



BENNETT
ENGINEERING, LLC

CIVIL
2224 JAMES STREET
BELLINGHAM, WA 98225
Cell: (360) 739-9844
Ph: (360) 671-2600

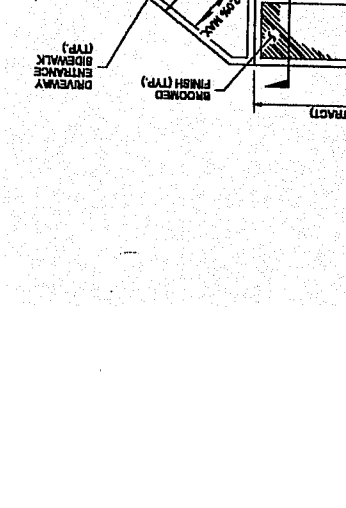
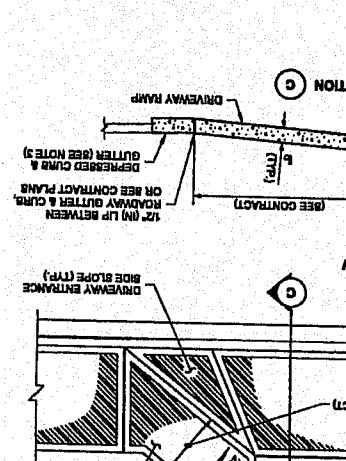
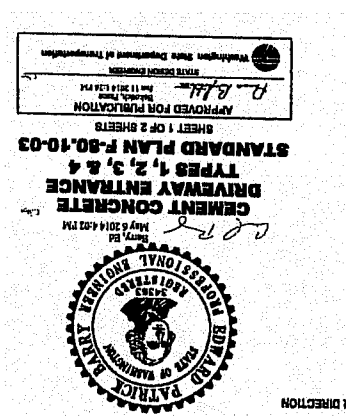
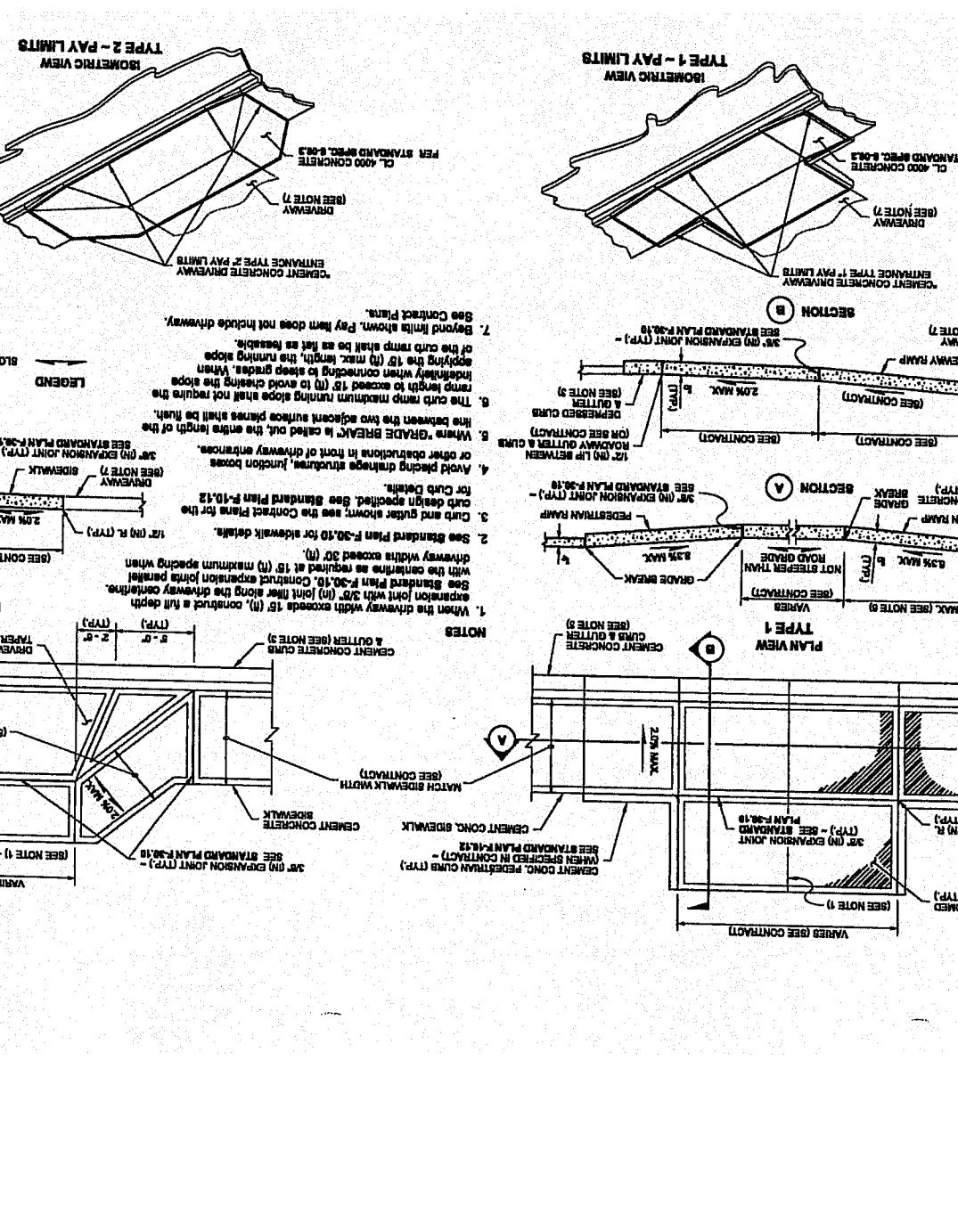
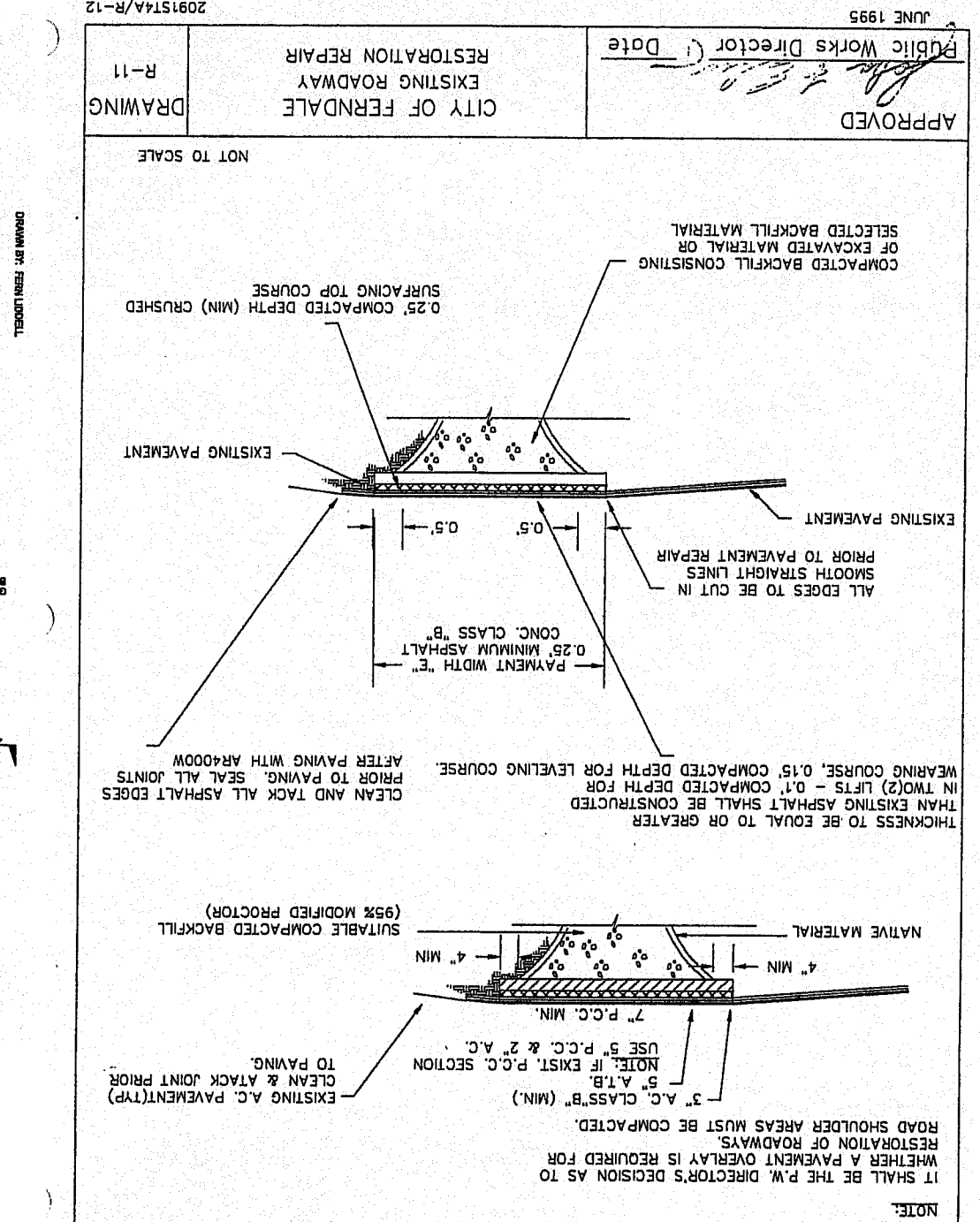
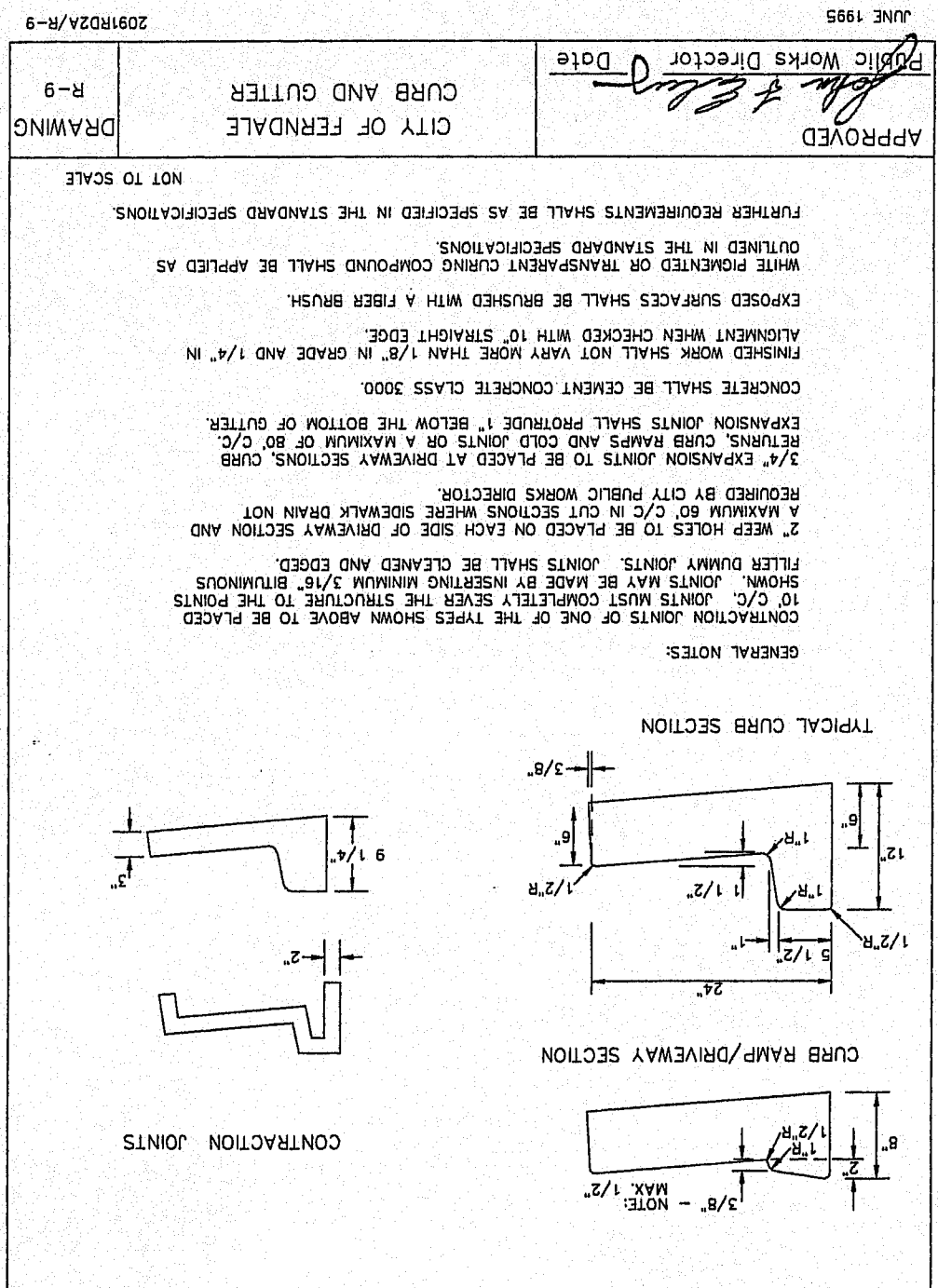
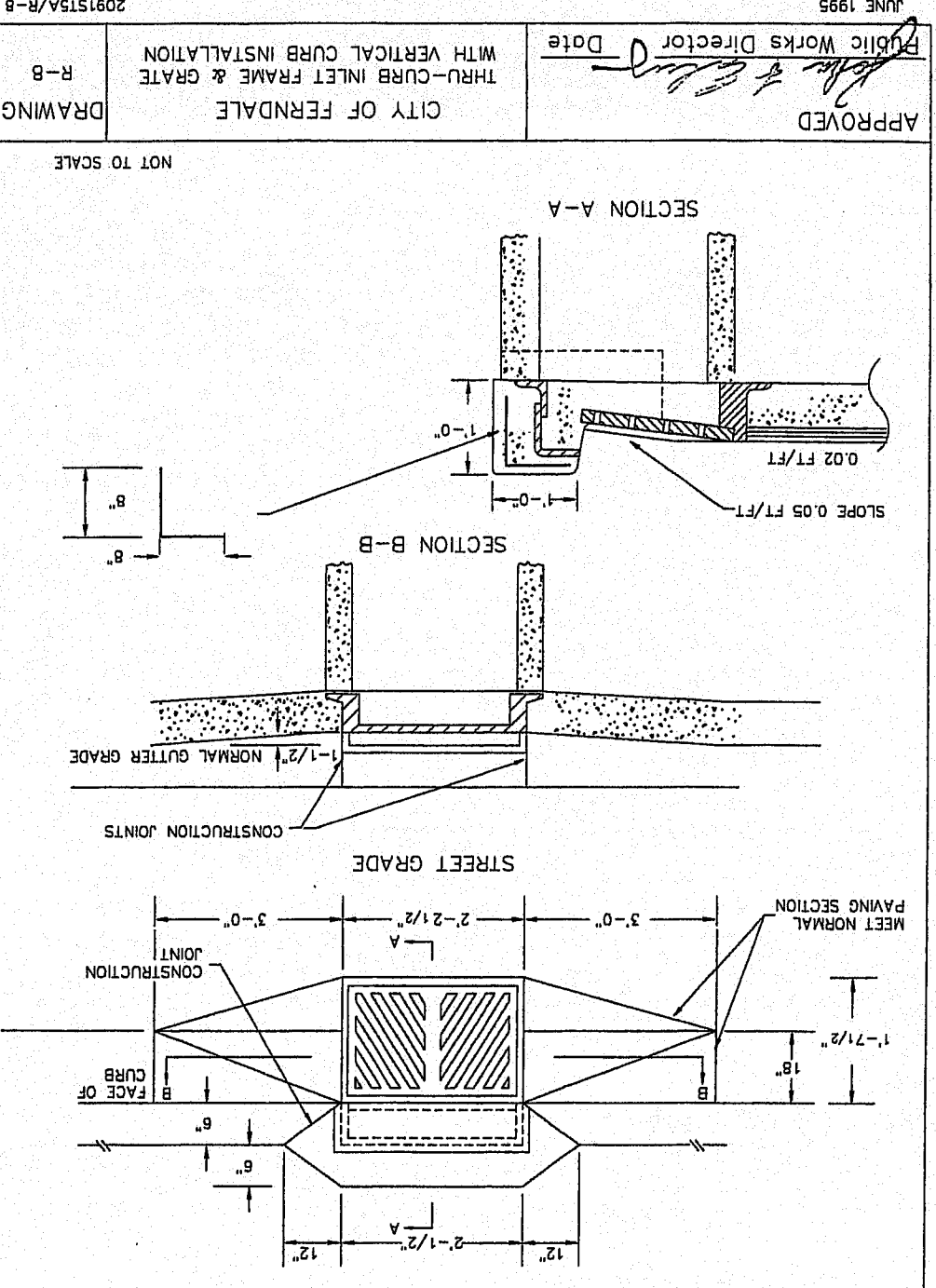
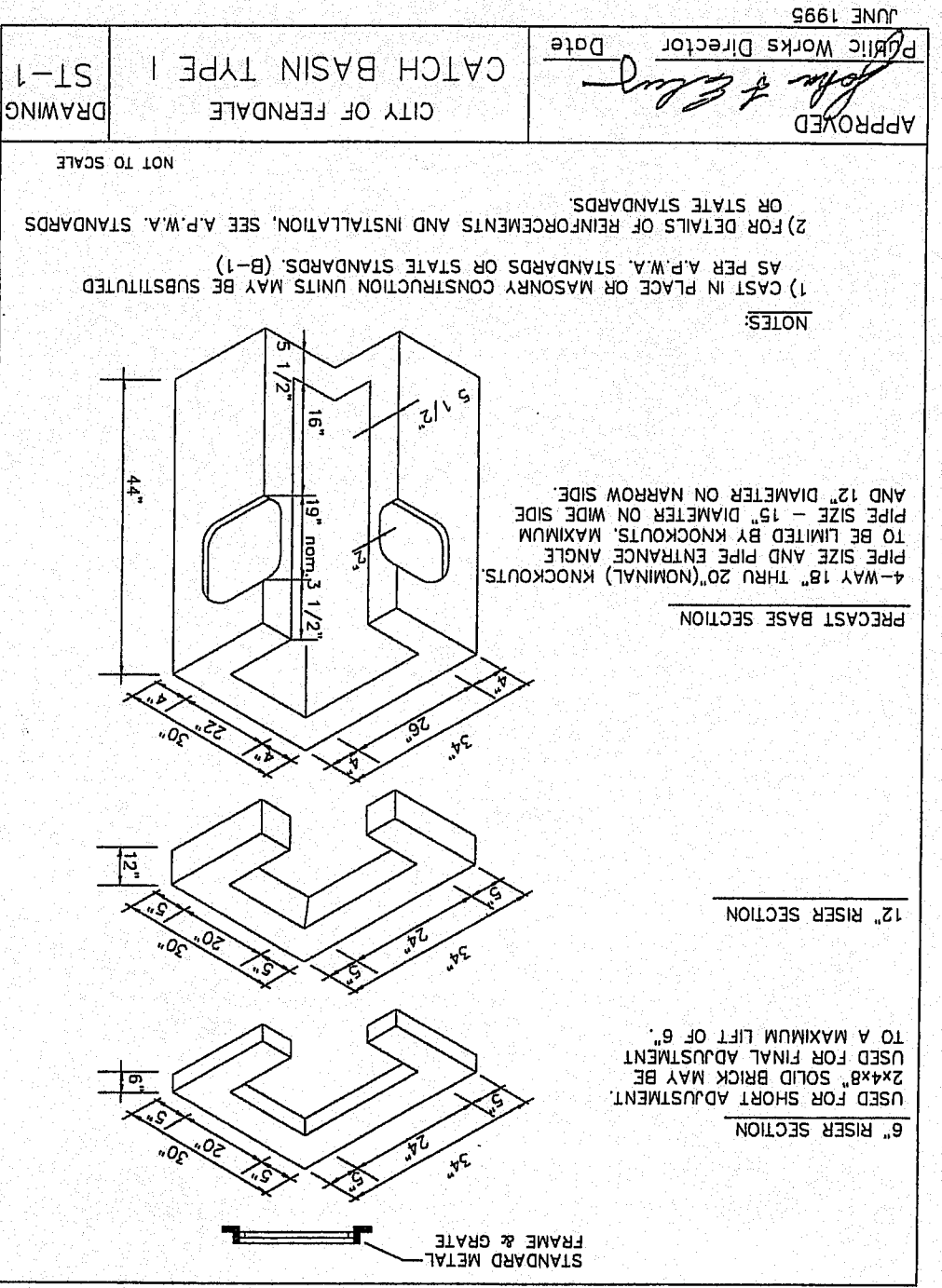
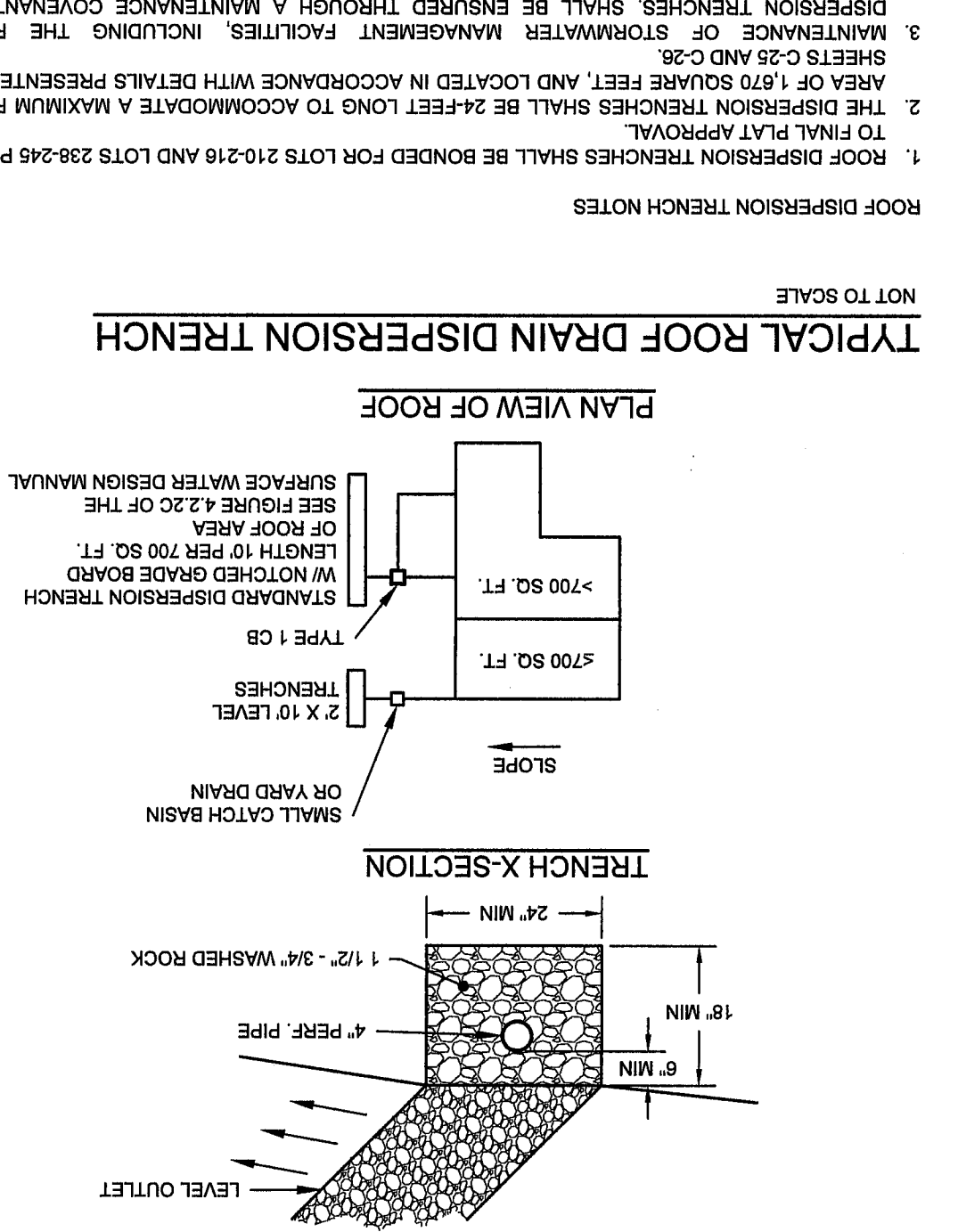
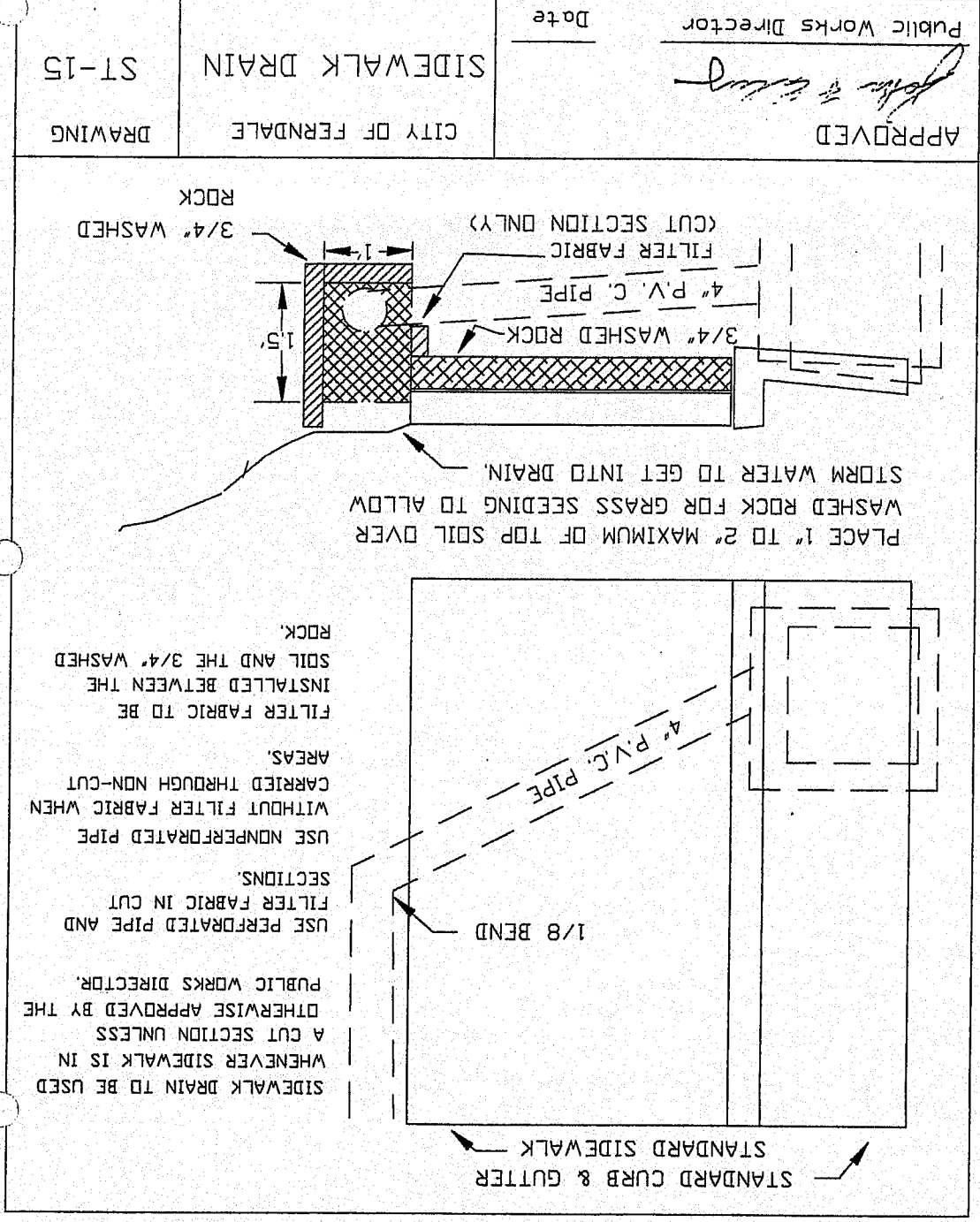
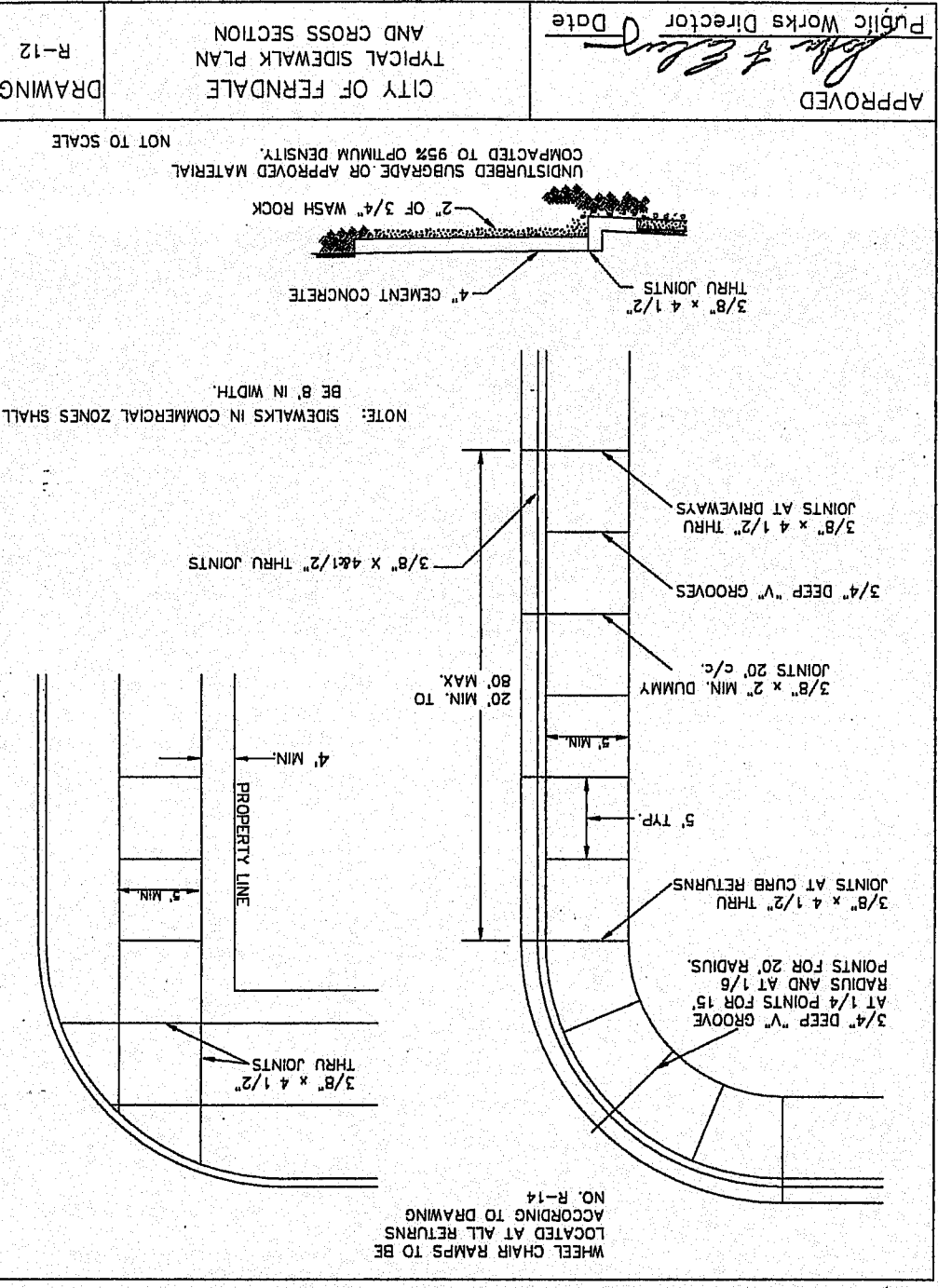
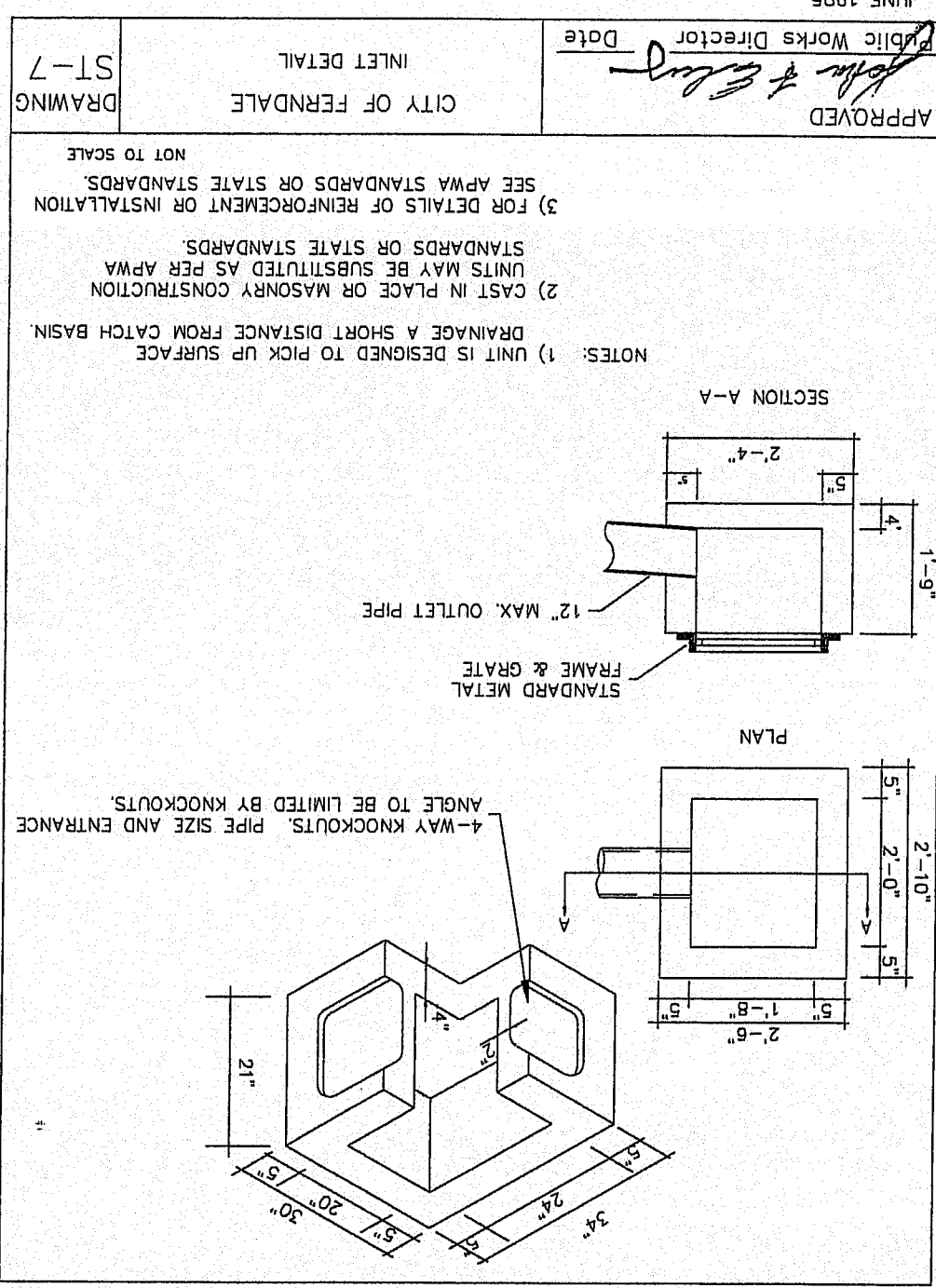
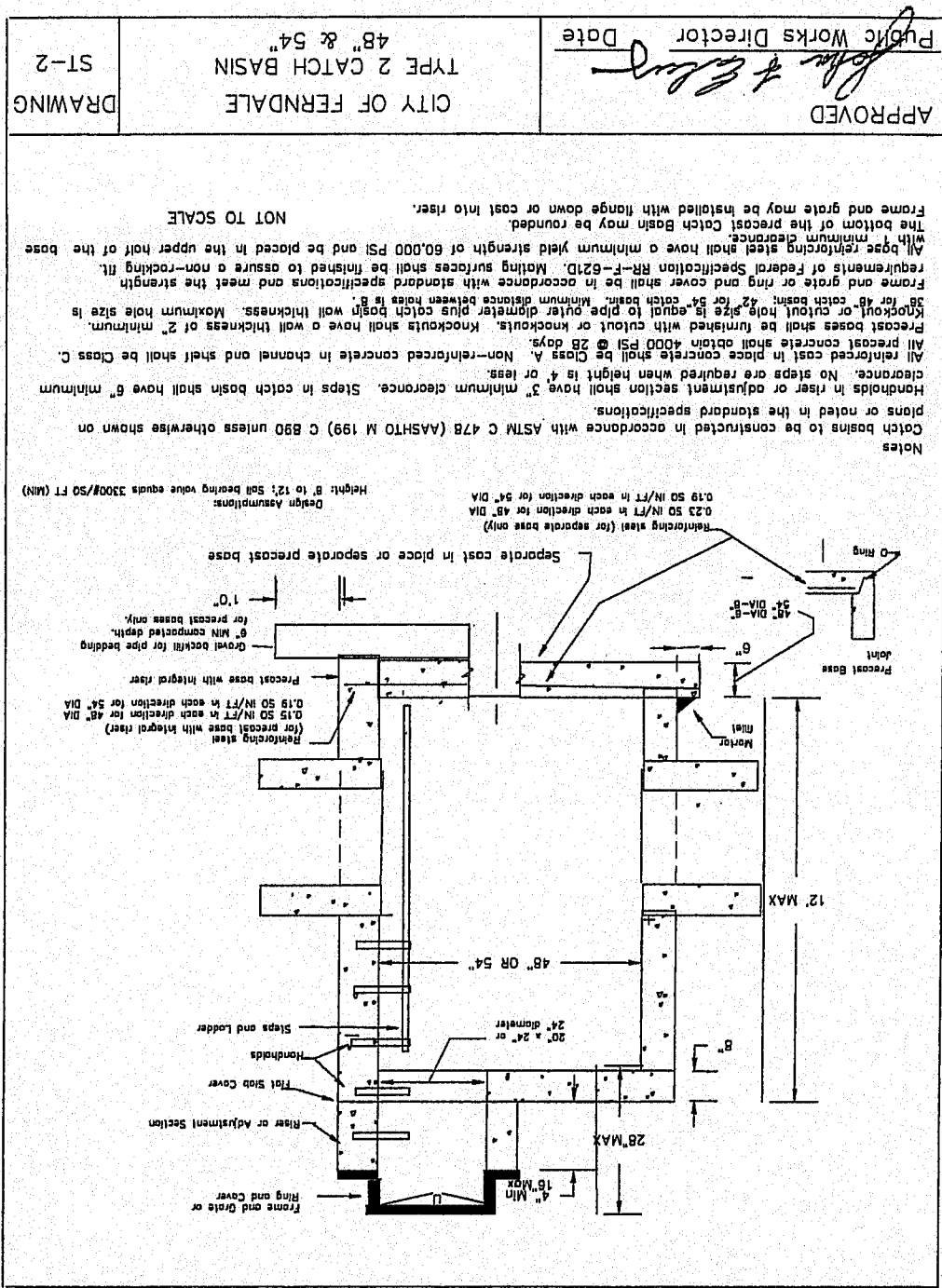
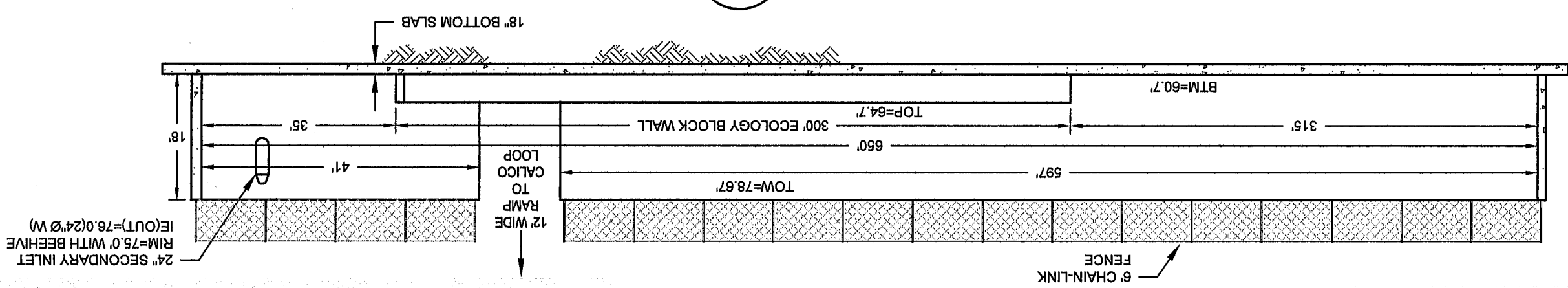
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DESIGNED BY	TEB
DRAWN BY	NCS
CHECKED BY	TEB

MALLOY VILLAGE LLC
24410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

DATE	MARCH 2016
SCALE	H: N/A
V: N/A	
SHEET	28 OF 31
DRAWING	C-27

STREET & STORM DETAILS
MALLOY VILLAGE PUD 2
FERNDALE, WASHINGTON

STORM VAULT SECTION Y-Y
NOT TO SCALE



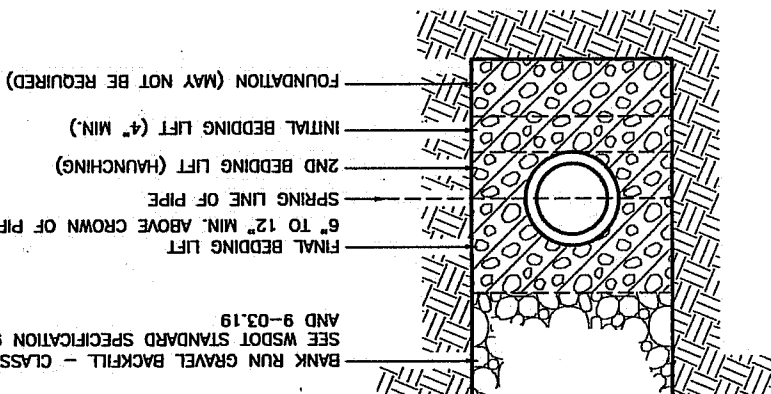
**CIVIL
ENVIRONMENTAL**
2324 JAMES STREET
BELLINGHAM, WA 98225
Ph: (360) 671-2600
Cell: (360) 739-9844

MALLOY VILLAGE LLC
24410 HAWTHORNE BLVD, STE 5
TORRANCE, CA 90501

DATE: SCALE: H: N/A V: N/A

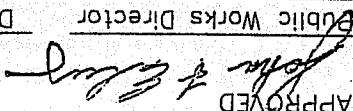
APPROVED
AUG 28 2017
BY [Signature]
CITY OF BERKDALE
PUBLIC WORKS DEPARTMENT

[illegible]

	Public Works Director	Date	STANDARD DETAIL 89-1 NOT TO SCALE										
APPROVED													
April 18, 2012													
PWC PIPE BEDDING													
THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS MAY BE USED IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND TUNNEL CONSTRUCTION, CURRENT EDITION: BEDDING FOR SLEEVES, JOISTS AND CUTTERS FOR PWC PIPE - BEDDING MATERIAL FOR PWC PIPE SHALL BE PEA GRAVEL CONFORMING TO THE FOLLOWING SPECIFICATIONS: PEA GRAVEL - PEA GRAVEL, BEDDING SHALL BE A CLEAN MATERIAL FREE FROM ORGANIC MATTER AND CONFORMING TO THE FOLLOWING GRADATION WHEN TESTED IN ACCORDANCE WITH ASTM D422: BACKFILL - WHENEVER A TRENCH IS EXCAVATED IN THE EXISTING OR PROPOSED ROADWAY, SIDEWALK OR OTHER AREAS WHERE SETTLEMENT WOULD BE DETRIMENTAL, THE EXISTING TRENCH SHALL BE BACKFILLED WITH IMPORTED GRAVEL AND COMPACTED TO 95% OF MAXIMUM DENSITY. <table><thead><tr><th>U.S. STANDARD SIEVE SIZE</th><th>PERCENTAGE PASSING, BY WT.</th></tr></thead><tbody><tr><td>#200</td><td>0-3</td></tr><tr><td>#10</td><td>0-10</td></tr><tr><td>#40</td><td>100</td></tr><tr><td>#100</td><td>95-100</td></tr></tbody></table> SEE WISDOT STANDARD SPECIFICATION 9-03.12(1)B AND 9-03.19 RAVE RAIN GUTTER, BOTTLE - CLASS "B"  FOUNDATION (MAY NOT BE REQUIRED)				U.S. STANDARD SIEVE SIZE	PERCENTAGE PASSING, BY WT.	#200	0-3	#10	0-10	#40	100	#100	95-100
U.S. STANDARD SIEVE SIZE	PERCENTAGE PASSING, BY WT.												
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#10	0-10												
#40	100												
#100	95-100												

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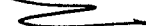
APPROVED <i>John A. Blair</i> Public Works Director	Date	CITY OF FERNDALE SANTARY SEWER SIDE SERVICE INSTALLATION SEE MAINS	NOT TO SCALE
2087244/55-8	SS-8	DRAINING	2087244/55-8

APPROVED  Public Works Director		Date
CITY OF FERNDALE DOUBLE SANITARY SEWER SERVICE		SS-13 DRAWING

20913E44/SS-13

JUNE 1995

APPROVED

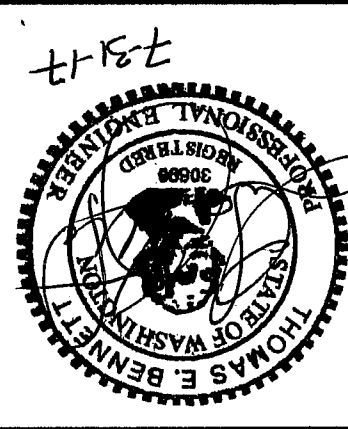
BY 

CITY OF FERNDALE
PUBLIC WORKS DEPARTMENT

AUG 28 2017

00624.029 11/21/17 KB

NO.	REVISION
4	RECORD DRAWING SET
3	REVISED PER COF COMMENTS (3)
2	REVISED PER COF COMMENTS (2)
1	REVISED PER COF COMMENTS
0	ISSUED FOR REVIEW
DATE	BY
7/31/17	TEB
7/08/16	NCS
6/06/16	NCS
5/05/16	NCS
3/09/16	NCS



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DRAWN BY:	NCS
CHECKED BY:	TEB

MALLOY VILLAGE LLC
24410 HAWTHORNE BLVD. STE 5
TORRANCE, CA 90501

DATE: MARCH 2016
SCALE: H: N/A
V: N/A
WATER DETAILS
MALLOY VILLAGE PUD 2
FERNDALE, WASHINGTON

DRAWING:	C-29
SHEET:	30 OF 31

