

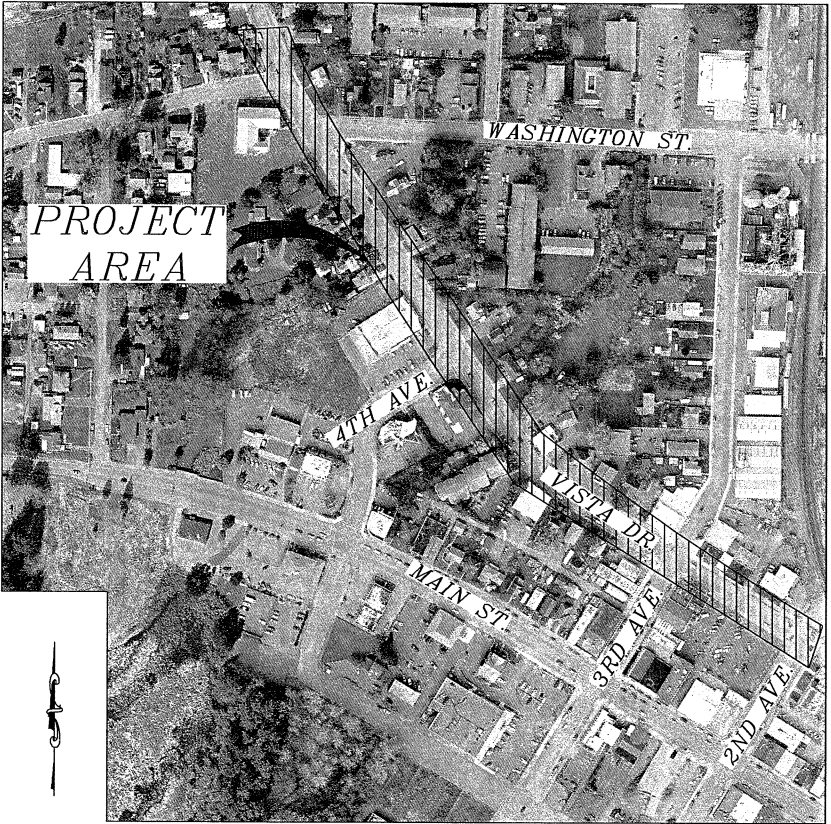
VISTA PAVEMENT PRESERVATION AND UTILITY IMPROVEMENTS

CITY OF FERNDALE

PROJECT NO. ST2013-01

VICINITY MAP

NTS



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4/24/13

DESIGNED BY
MLK
DRAWN BY
RWG
CHECKED BY
LP

R&E Reichhardt & Ebe
ENGINEERING INC
423 Front St, Lynden, WA 98264 (360) 354-3687
813 Metcalf St., Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	REVISION	BY

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

VISTA IMPROVEMENTS
COVER SHEET

JOB# / DWG 13006 PROP-DESIGN	DATE 4-24-13
SCALE H: n/a V: n/a	SHEET 1 of 22

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ABBREVIATIONS

AC = ASBESTOS CEMENT	FL = FLOW LINE	N = NORTH	SCH = SCHEDULE
ASPH = ASPHALT	FF = FINISHED FLOOR	OC = ON CENTER	S = SOUTH
BLDG = BUILDING	FG = FINISHED GRADE	PWMT = PAVEMENT	STD = STANDARD
CATV = CABLE TELEVISION	FT/FT = FEET PER FOOT	PED = PEDESTAL	SP = STANDARD PLAN
CL = CLASS, CENTERLINE	F&C = FRAME AND COVER	PCC = POINT OF COMPOUND CURVATURE	STA = STATION
COMP = COMPACTED	F&G = FRAME AND GRATE	PC = POINT OF CURVATURE	SDCB = STORM DRAIN CATCH BASIN
CONC = CONCRETE	IW = INJECTION WELL	PRC = POINT OF REVERSE CURVE	SDMH = STORM DRAIN MANHOLE
C & G = CURB & GUTTER	IE, INV = INVERT ELEVATION	PT = POINT OF TANGENCY	TEL = TELEPHONE
CPDP = CORRUGATED POLYETHYLENE DRAIN PIPE	L = LENGTH	POC = POINT ON CURVE	TL = TRAFFIC LOOP
Ø = DIAMETER	LF = LINEAR FEET	PVC = POLYVINYL CHLORIDE	TYP = TYPICAL
DI = DUCTILE IRON	LOC = LOCATION	PCC = PORTLAND CEMENT CONCRETE	UP = UTILITY POLE
E = EAST	MAX = MAXIMUM	POSS = POSSIBLE	VLT = VAULT
EOP, EP = EDGE OF PAVEMENT	MPOC = MID-POINT ON CURVE	PROP = PROPOSED	WSDOT = WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
EX, EXIST = EXISTING	MIN = MINIMUM	R = RADIUS	W = WEST
IR = EXISTING IRRIGATION	MOD = MODIFIED	ROW = RIGHT OF WAY	WM = WATER METER
SN = EXISTING SIGN	MW = MONITORING WELL	R&C = RING AND COVER	
FT = FEET	MON = MONUMENT	SSMH = SANITARY SEWER MANHOLE	

LEGEND

EXISTING	
BB	= EX TOE OF BANK
OH	= EX OVERHEAD POWER
	= EX CONCRETE
	= EX CULVERT
	= EX DITCH CL
X	= EX FENCE
FO	= EX FIBER OPTICS LINE
G	= EX GAS MAIN
O	= EX GUARDRAIL
	= EX GRAVEL
	= EX PROPERTY BOUNDARY
PR	= EX POWER BURIED
	= EX ROAD CL
	= EX EDGE OF PAVEMENT
	= EX WALL
	= EX RIGHT OF WAY
	= EX TREE LINE
	= EX LANDSCAPE
SD	= EX STORM DRAIN
TS	= EX TRAFFIC SIGNAL CONDUCTOR
SS	= EX SANITARY SEWER
	= EX TRAFFIC STRIPING
	= EX PARKING STRIPING
TB	= EX TOP OF BANK
T	= EX TELEPHONE LINE
OT	= EX OVERHEAD TELEPHONE
TV	= EX TV LINE
W	= EX WATER MAIN
	= EX SIDEWALK
	= EX WETLANDS BOUNDARY
	= EX EASEMENT
	= EX GRADE BREAK
FM	= EX SANITARY SEWER FORCE MAIN
	= EX FLOWLINE
C	= EX TOP BACK CURB
C	= EXISTING CONDUIT
UD	= EX UNDERDRAIN
	= EX RR TRACKS
	= EX BUILDING
	= EX CONCRETE IN ROADWAY
	= EX MONITORING WELL
	= EX SOIL BORING LOCATION
	= EX GUY WIRE
	= EX STORM CLEANOUT
	= EX SEWER CLEANOUT
	= EX JBOX
	= EX STREET LIGHT
	= EX MAIL BOX
	= EX WATER METER
	= EX WATER SPIGOT
	= EX WATER SPRINKLER
	= EX WATER VALVE
	= EX FIRE HYDRANT
	= EX TRAFFIC SIGNAL VAULT
	= EX SEWER MANHOLE
	= EX WATER MANHOLE
	= EX STORM DRAIN CATCH BASIN TYPE I
	= EX STORM DRAIN CATCH BASIN TYPE II
	= EX UTILITY POLE
	= EX GAS METER
	= EX TRANSFORMER PAD
	= EX POWER VAULT
	= EX SIGN
	= EX TELEPHONE PEDESTAL
	= EX SIGNAL POLE AND ARM W/ LUMINAIRE
	= EX TREE
	= EX VEGETATION

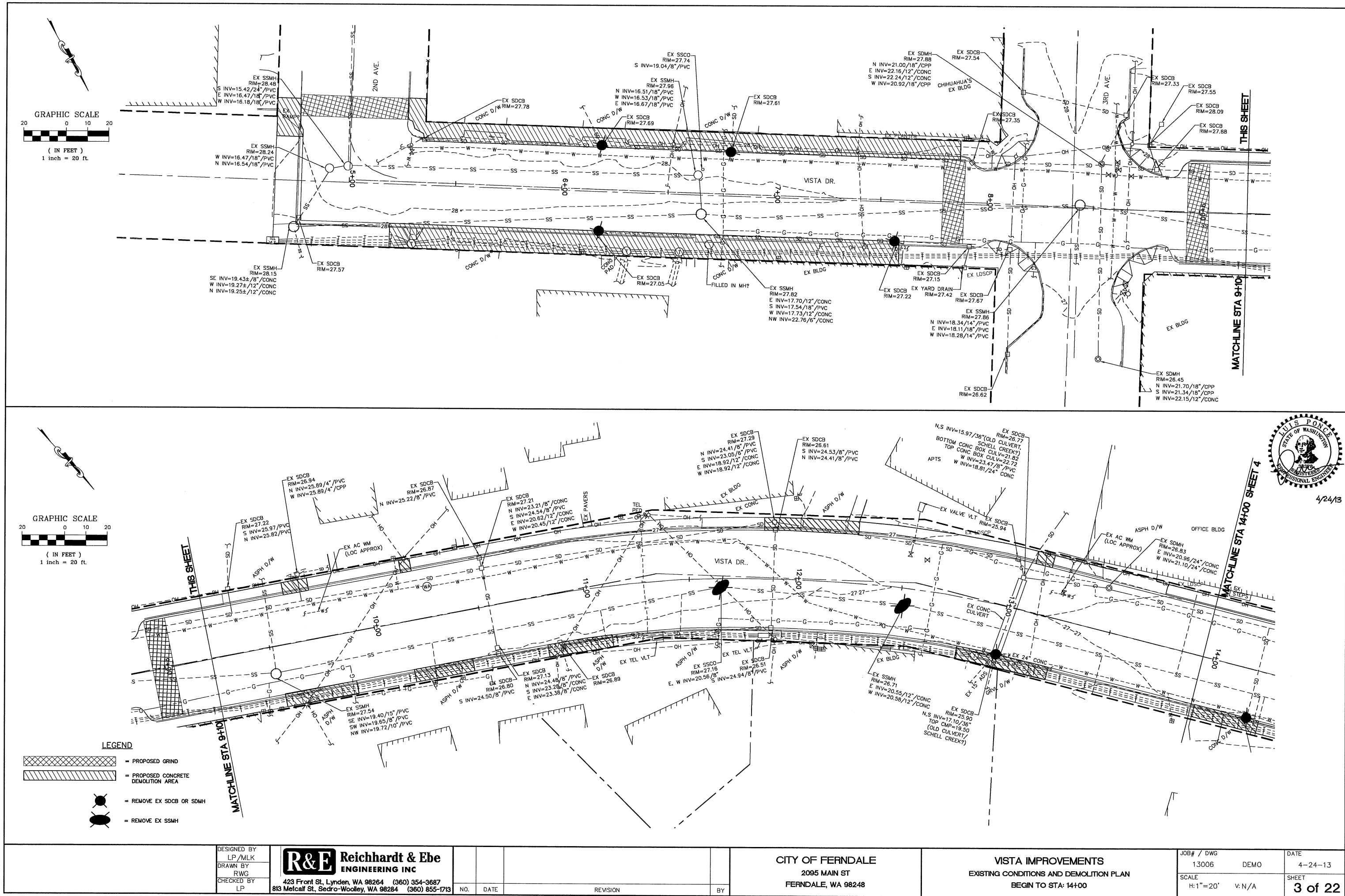
PROPOSED	
	= PROPOSED AUTOTURN
	= PROPOSED DITCH CL
BB	= PROPOSED TOE OF BANK
C	= PROPOSED CONDUIT
TB	= PROPOSED TOP OF BANK
95	= PROPOSED MAJOR CONTOUR
95	= PROPOSED MINOR CONTOUR
X	= PROPOSED FENCE
	= PROPOSED HANDRAIL
	= PROPOSED CONSTRUCTION EASEMENT
FM	= PROPOSED SANITARY SEWER FORCE MAIN
FO	= PROPOSED FIBER OPTICS
	= PROPOSED GRADE BREAK
O	= PROPOSED GUARDRAIL
	= PROPOSED GRAVEL
	= PROPOSED PATH
	= PROPOSED PARKING STRIPE
	= PROPOSED TRAFFIC STRIPE
	= PROPOSED ROCK WALL
	= PROPOSED BACK OF CURB
	= PROPOSED ROAD CL
	= PROPOSED ROAD EDGE OF PAVEMENT
	= PROPOSED ROAD FACE OF CURB
	= PROPOSED ROAD LIP OF GUTTER
	= PROPOSED RIGHT OF WAY
	= PROPOSED SAWCUT
SD	= PROPOSED STORM DRAIN
SD	= PROPOSED FIELD STORM DRAIN
TS	= PROPOSED TRAFFIC SIGNAL CONDUCTOR
X	= PROPOSED SILT FENCE
SS	= PROPOSED SANITARY SEWER
	= PROPOSED TREE LINE
W	= PROPOSED WATER MAIN
	= PROPOSED SIDEWALK
	= PROPOSED PAVEMENT VALLEY
UD	= PROPOSED UNDERDRAIN
	= PROPOSED GRIND
	= PROPOSED CONCRETE DEMOLITION AREA
	= PROPOSED ASPHALT APRON
	= PROPOSED CONC. SIDEWALK/DRIVEWAY
	= PROPOSED BUILDING
	= PROPOSED MONITORING WELL
	= PROPOSED STORM DRAIN CATCH BASIN TYPE I
	= PROPOSED STORM DRAIN CATCH BASIN TYPE II
	= PROPOSED STORM CLEANOUT
	= PROPOSED STORM DRAIN INLET
	= PROPOSED SANITARY SEWER MANHOLE
	= PROPOSED SANITARY SEWER MANHOLE
	= PROPOSED SANITARY SEWER CLEAN OUT
	= PROPOSED HYDRANT
	= PROPOSED WATER METER
	= PROPOSED WATER VALVE
	= PROPOSED COUPLER
	= PROPOSED UTILITY POLE
	= PROPOSED SIGN
	= FLOW ARROW
	= PROPOSED TREE



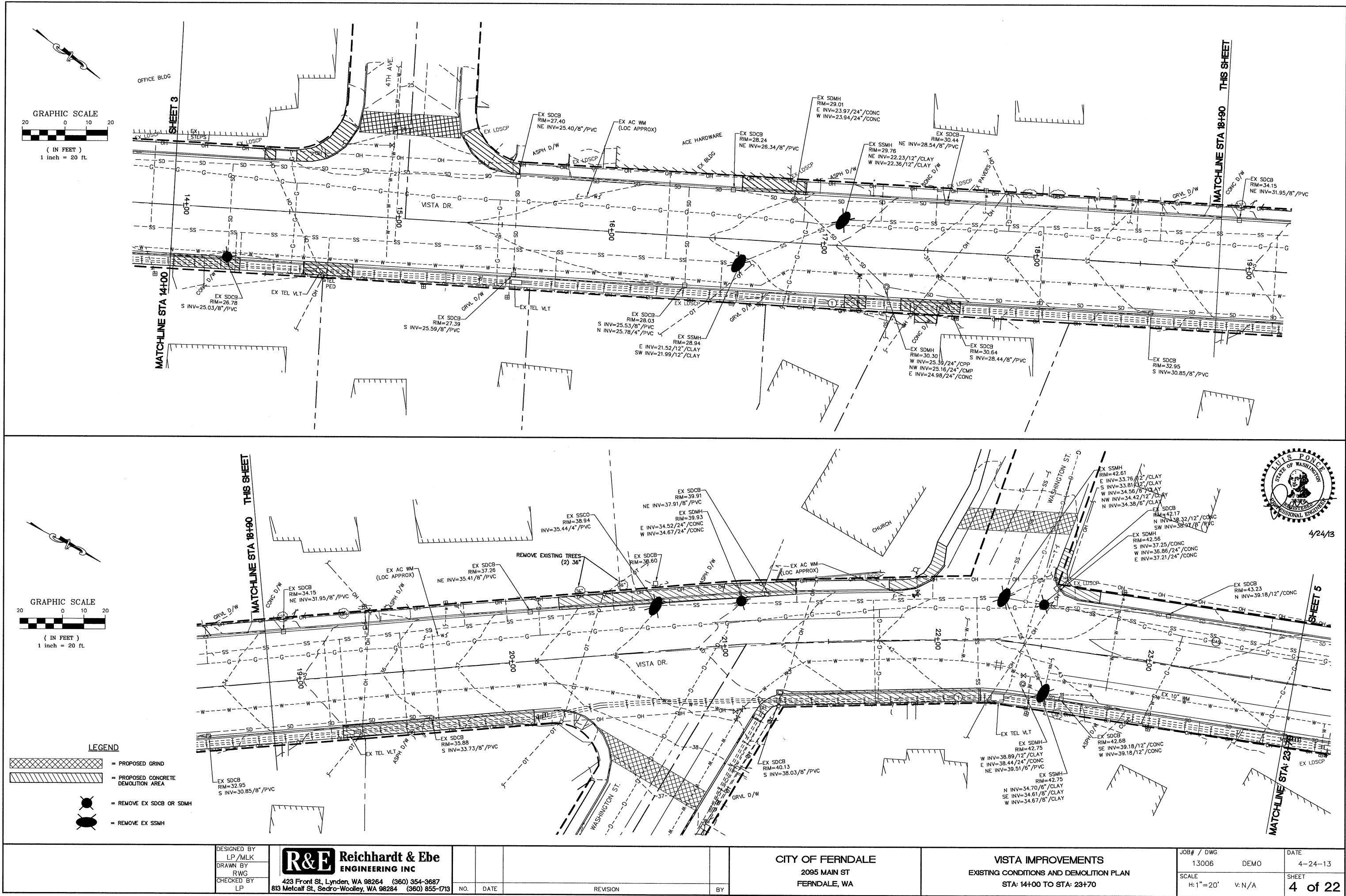
4/24/13

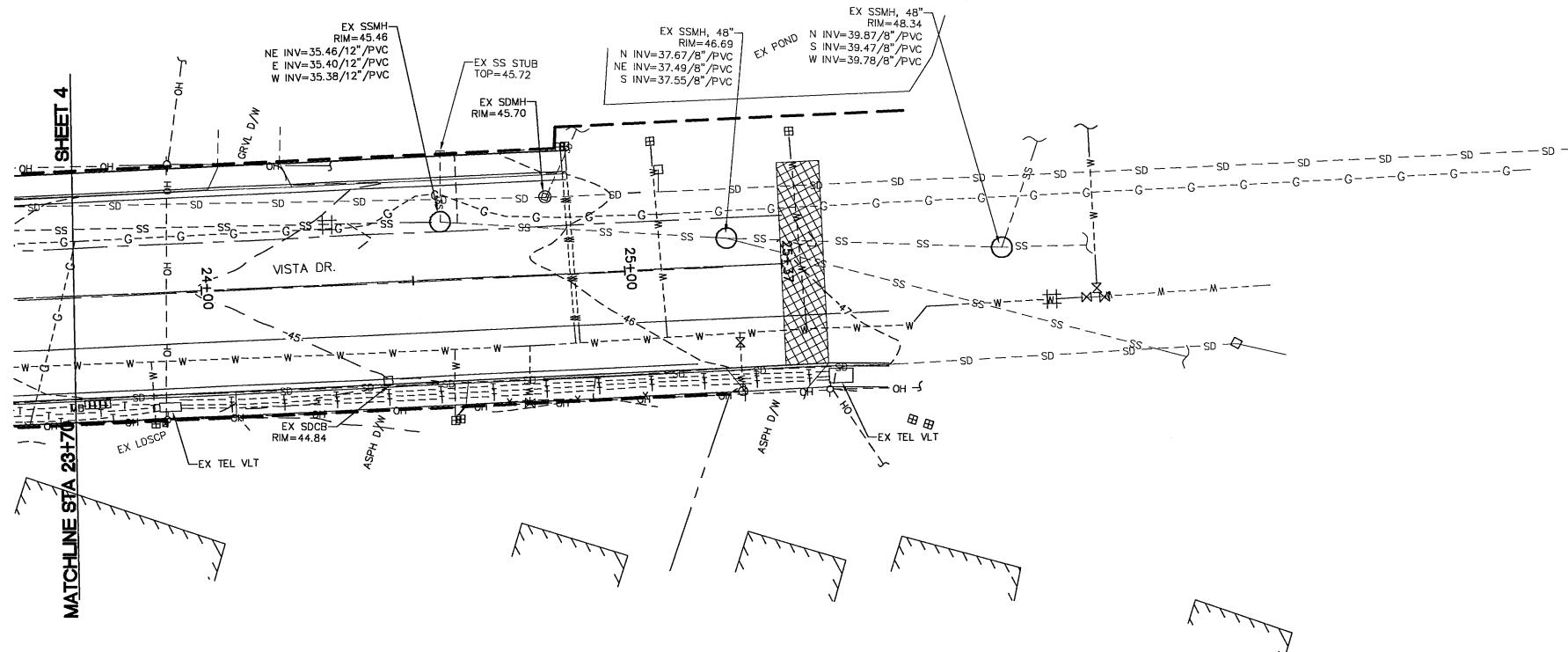
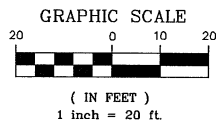
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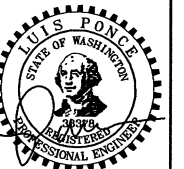
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LEGEND

- = PROPOSED GRIND
- = PROPOSED CONCRETE DEMOLITION AREA
- = REMOVE EX SDCB OR SDMH
- = REMOVE EX SSMH



4/24/13

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RWG
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LP

R&E Reichhardt & Ebe
ENGINEERING INC
423 Front St, Lynden, WA 98264 (360) 354-3687
813 Metcalf St, Sedro-Woolley, WA 98284 (360) 855-1713

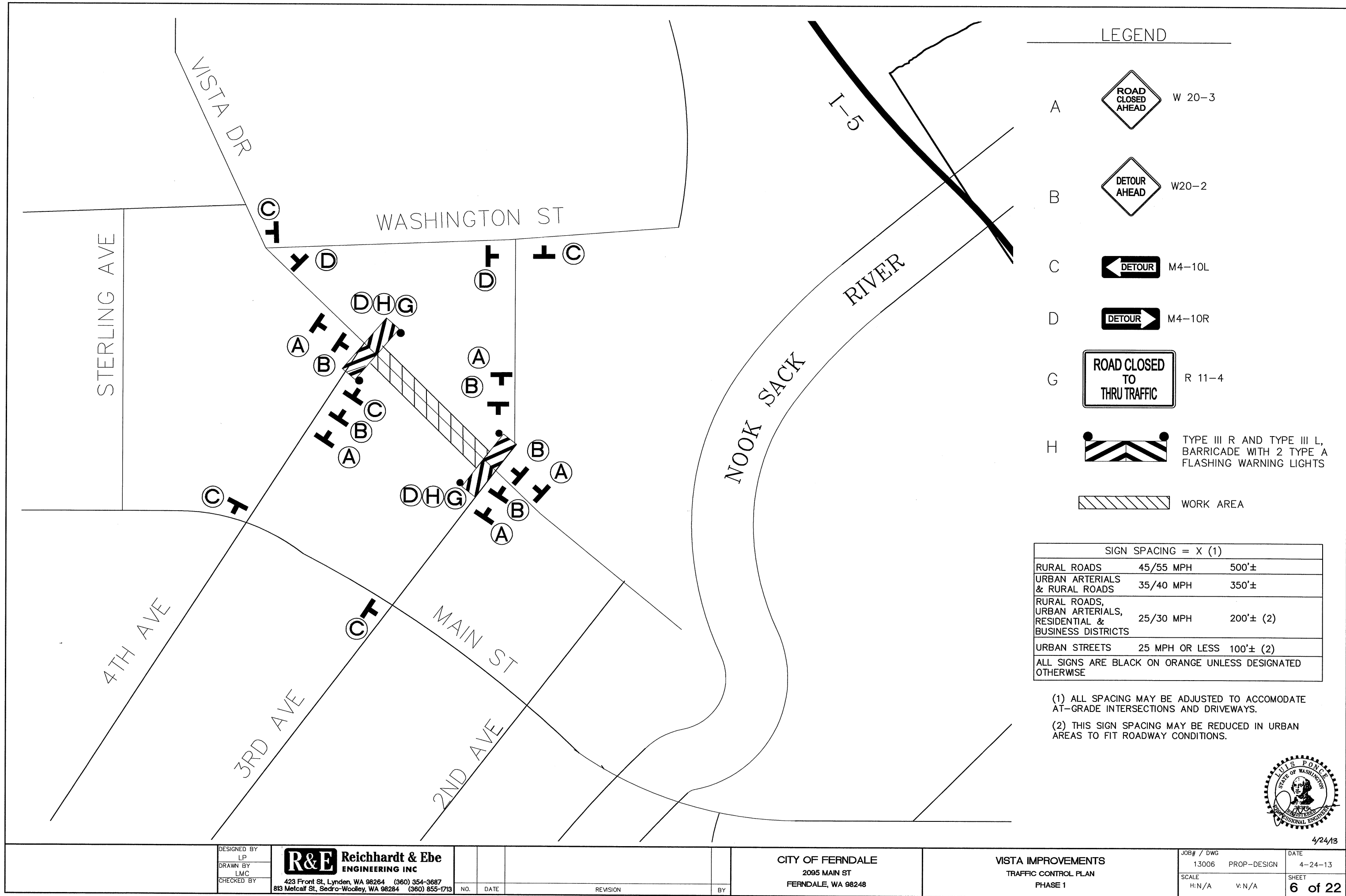
NO.	DATE	REVISION	BY

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2095 MAIN ST
FERNDAL, WA 98248

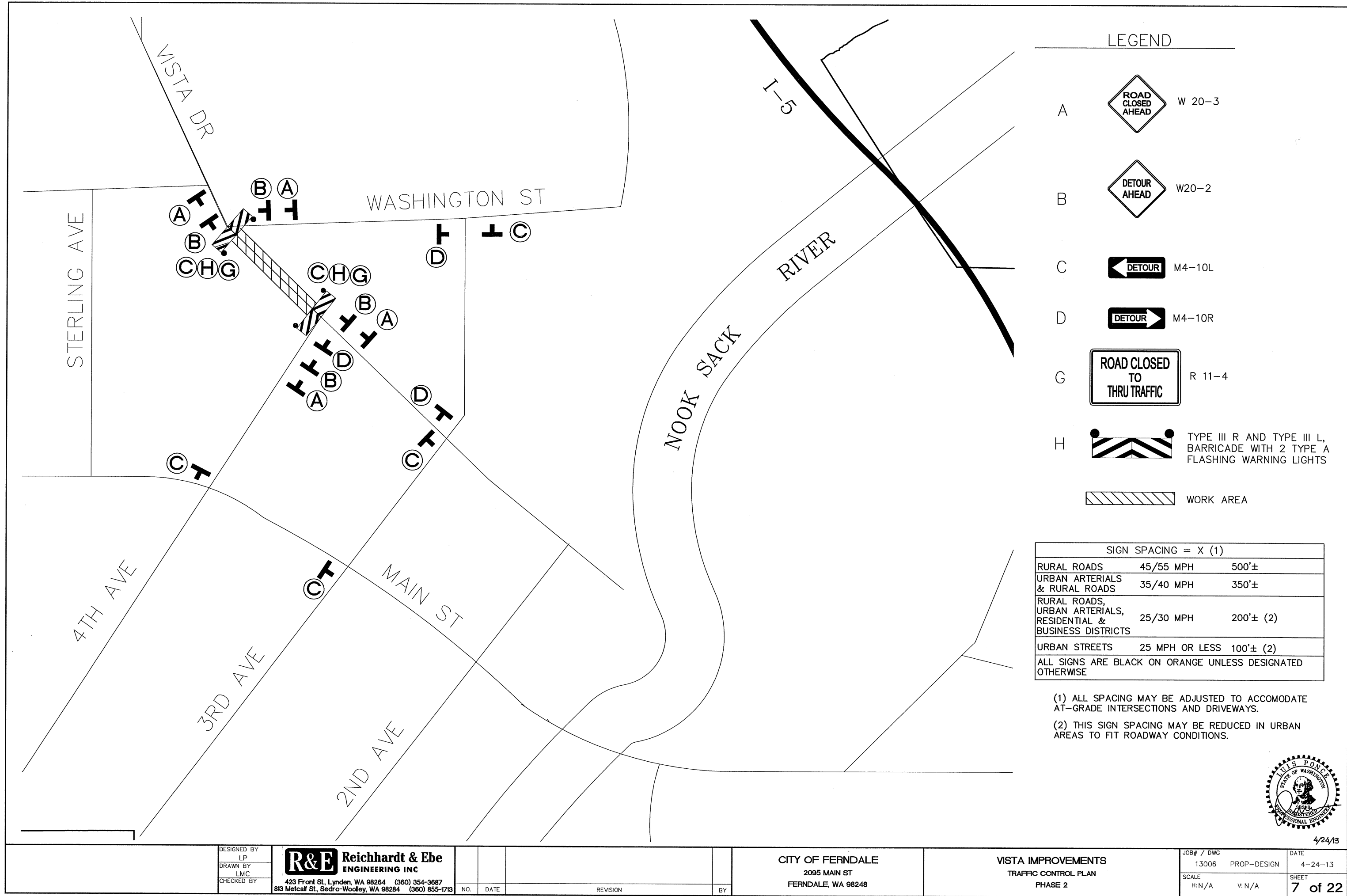
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EXISTING CONDITIONS AND DEMOLITION PLAN
STA: 23+70 TO END

JOB# / DWG 13006 DEMO	DATE 4-24-13
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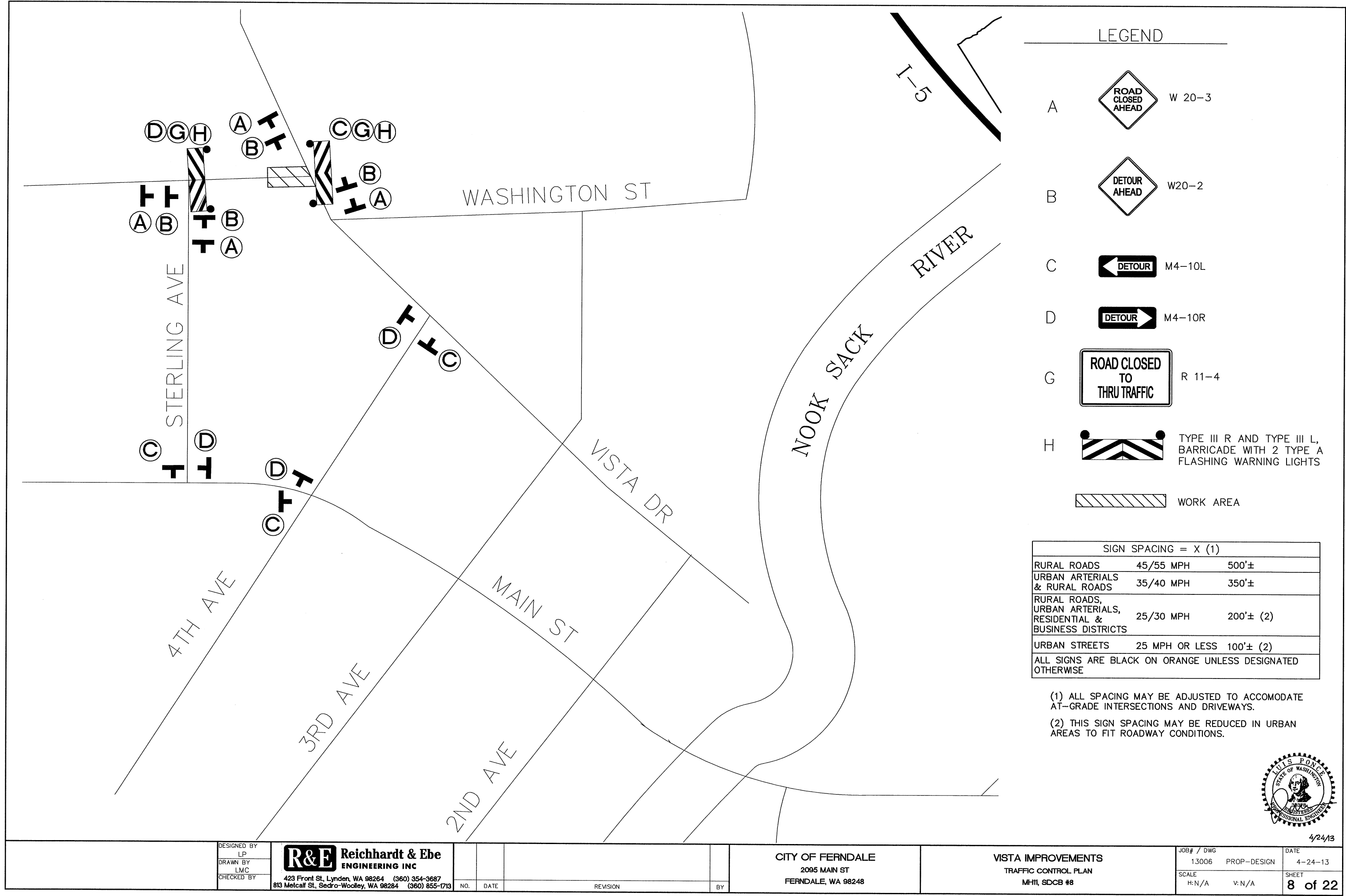
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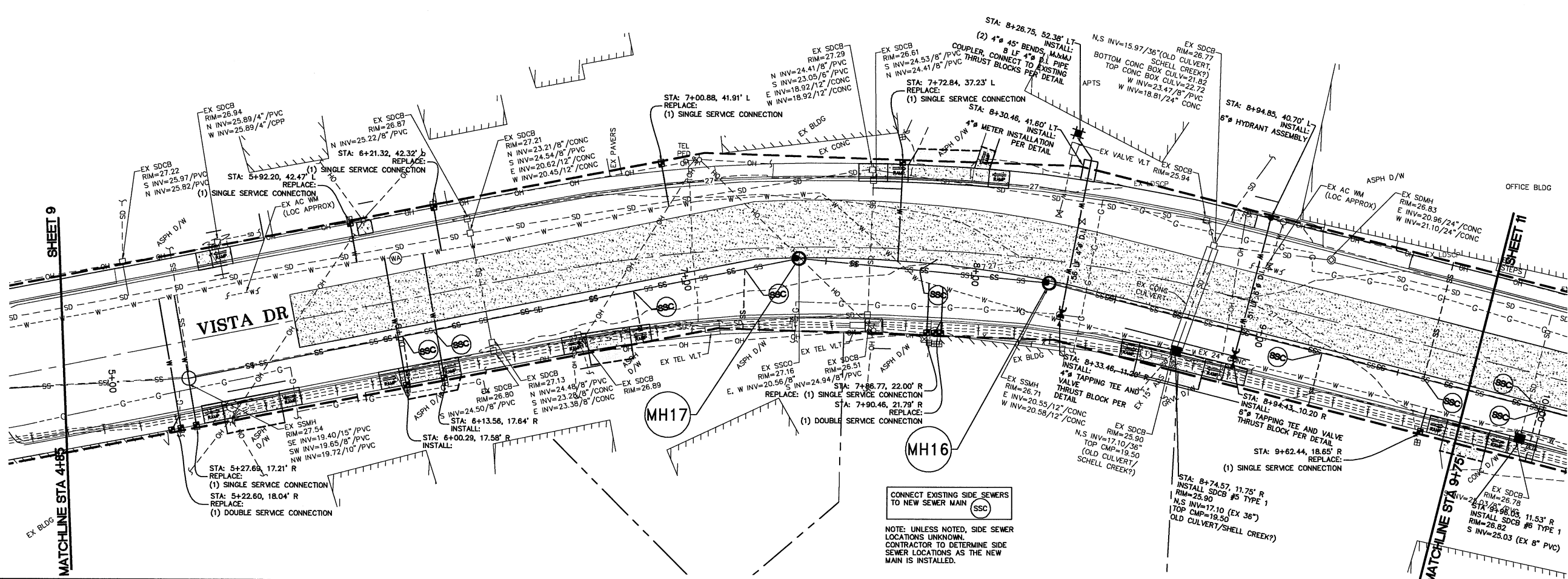


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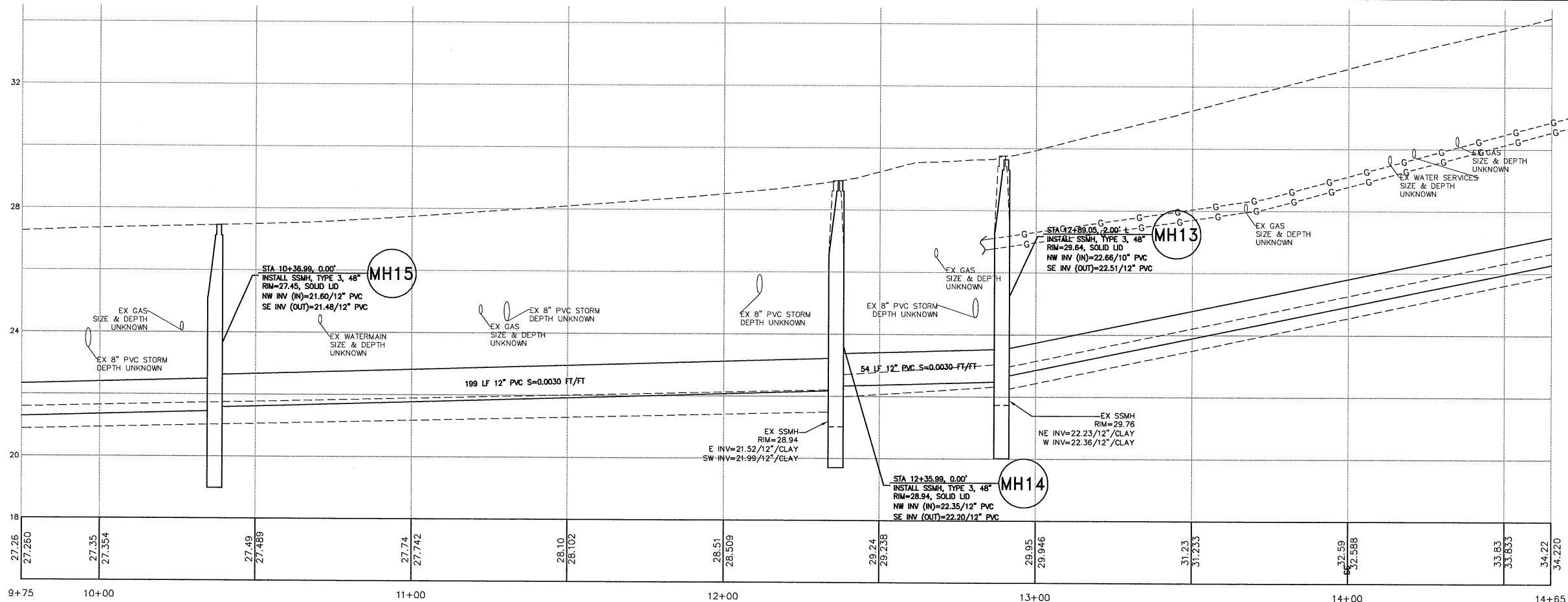
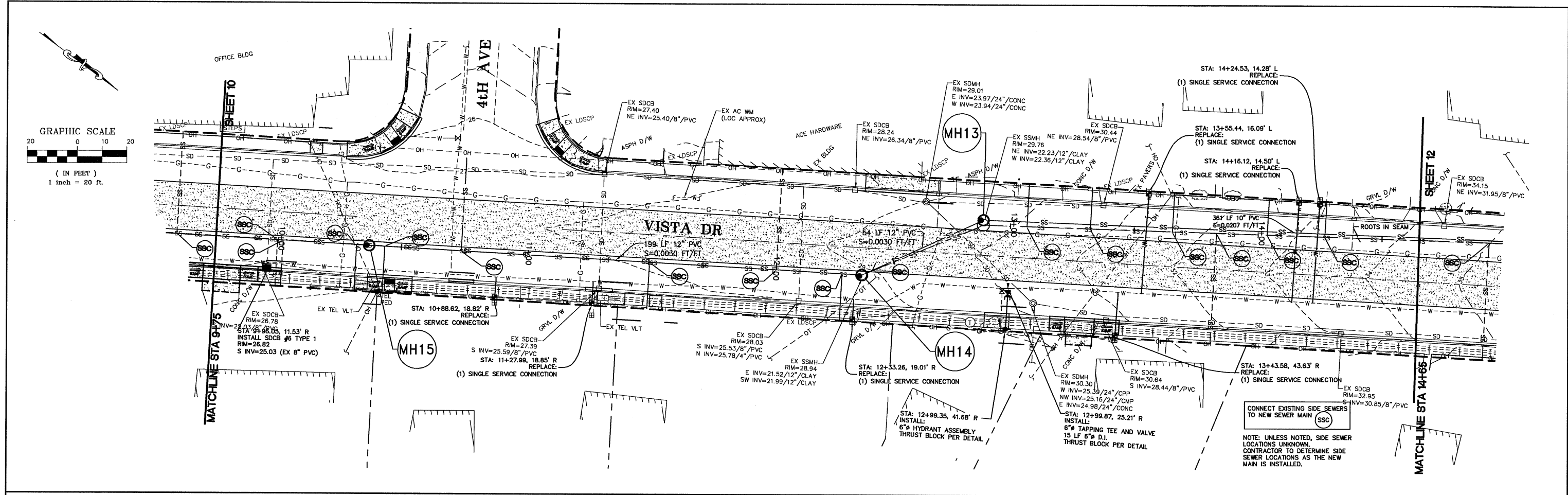
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JOB# / DWG 13006 PROP-DESIGN	DATE 4-24-13
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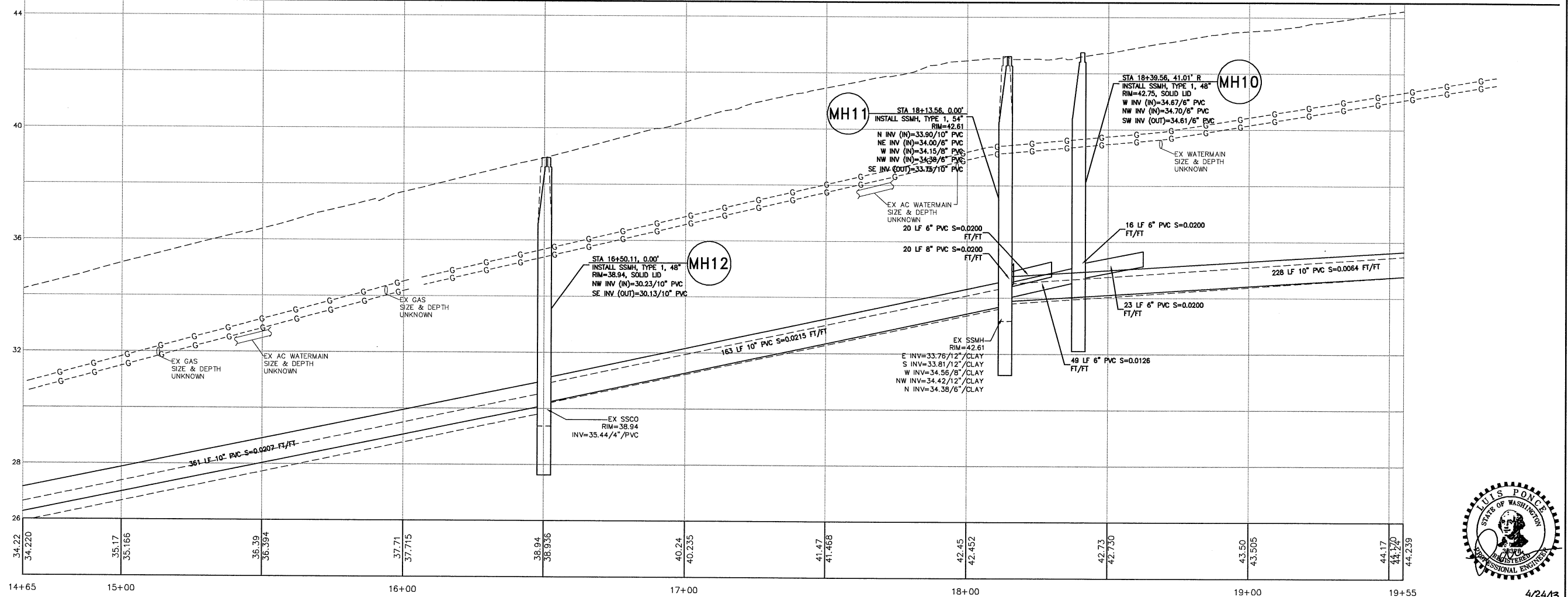
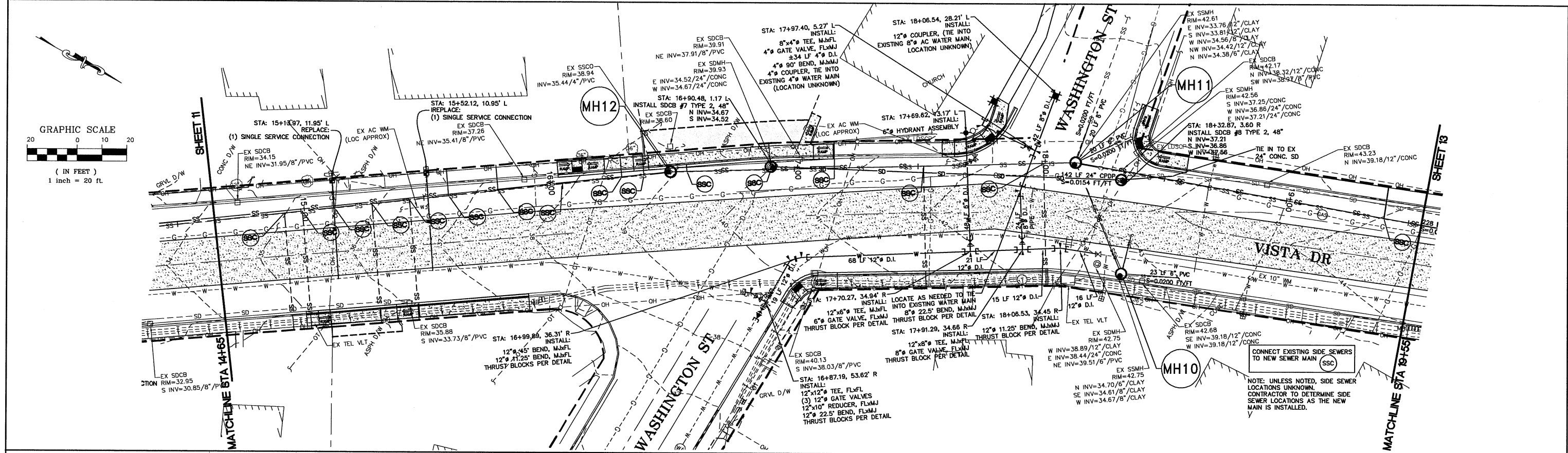
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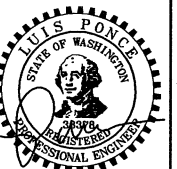
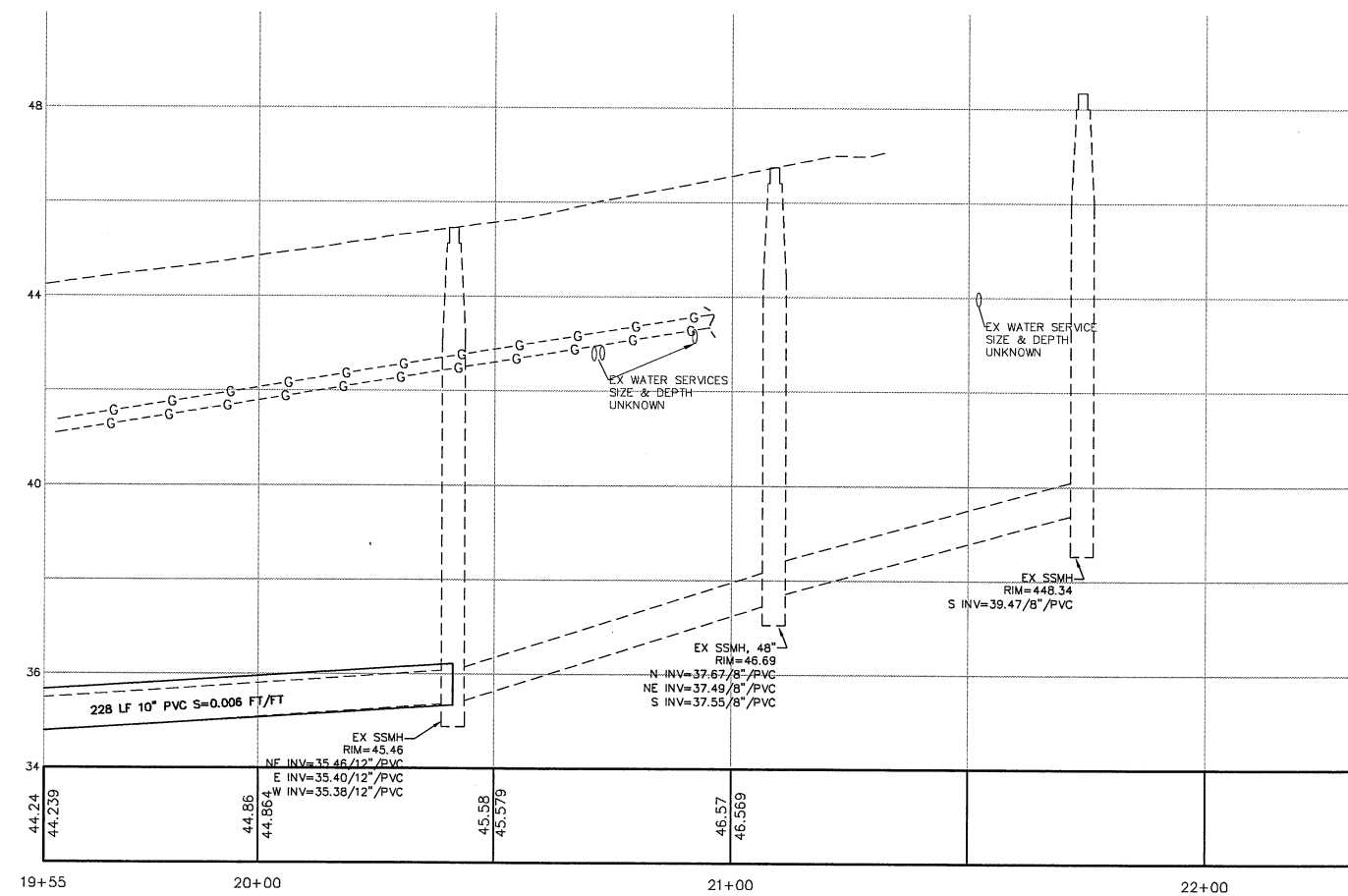
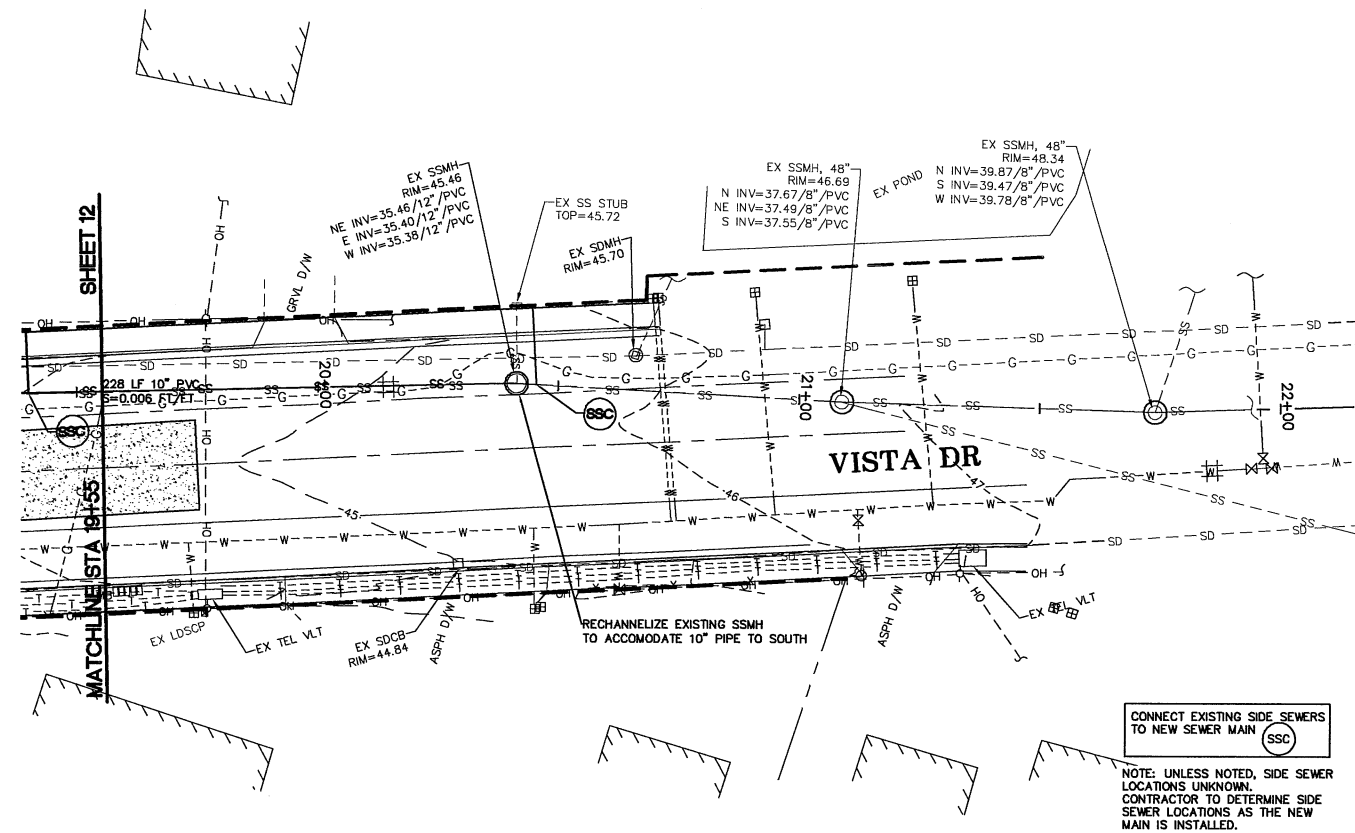
4/24/13

DESIGNED BY LP		R&E Reichhardt & Ebe ENGINEERING INC 423 Front St, Lynden, WA 98264 (360) 354-3687 813 Metcalf St, Sedro-Woolley, WA 98284 (360) 855-1713						CITY OF FERNDAL		VISTA IMPROVEMENTS		JOB# / DWG 13006 PROP-DESIGN		DATE 4-24-13	
DRAWN BY LMC								2095 MAIN ST		STA 9+75 TO 14+65					
CHECKED BY								FERNDAL, WA		PLAN AND PROFILE		SCALE H: 1"=20' V: 1"=2'		SHEET 11 of 22	
				NO.		DATE		REVISION		BY					

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	DRAWN BY											13006 PROP-DESIGN	4-24-13	
	CHECKED BY												SCALE H: 1"=20' V: 1"=2'	SHEET 12 of 22
			NO.	DATE	REVISION	BY	CITY OF FERNDAL 2095 MAIN ST FERNDAL, WA 98248			VISTA IMPROVEMENTS STA 14+65 TO 19+55 PLAN AND PROFILE				



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CHECKED BY	

R&E **Reichhardt & Ebe**
ENGINEERING INC

423 Front St., Lynden, WA 98264 (360) 354-3687
813 Metcalf St., Sedro-Woolley, WA 98284 (360) 855-1713

NO.	DATE	REVISION	B
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CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

VISTA IMPROVEMENTS

19+55 TO 22+25

PLAN AND PROFILE

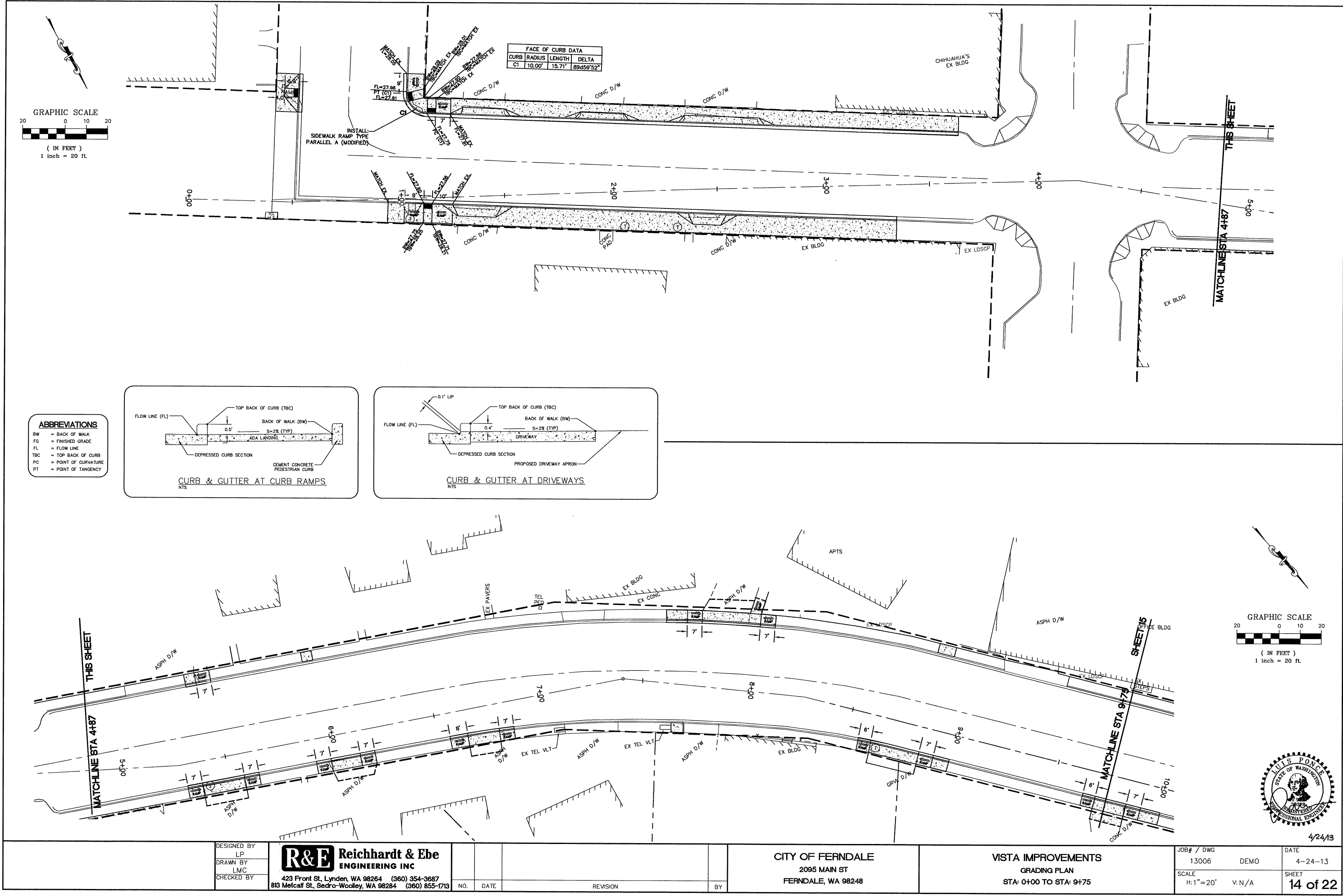
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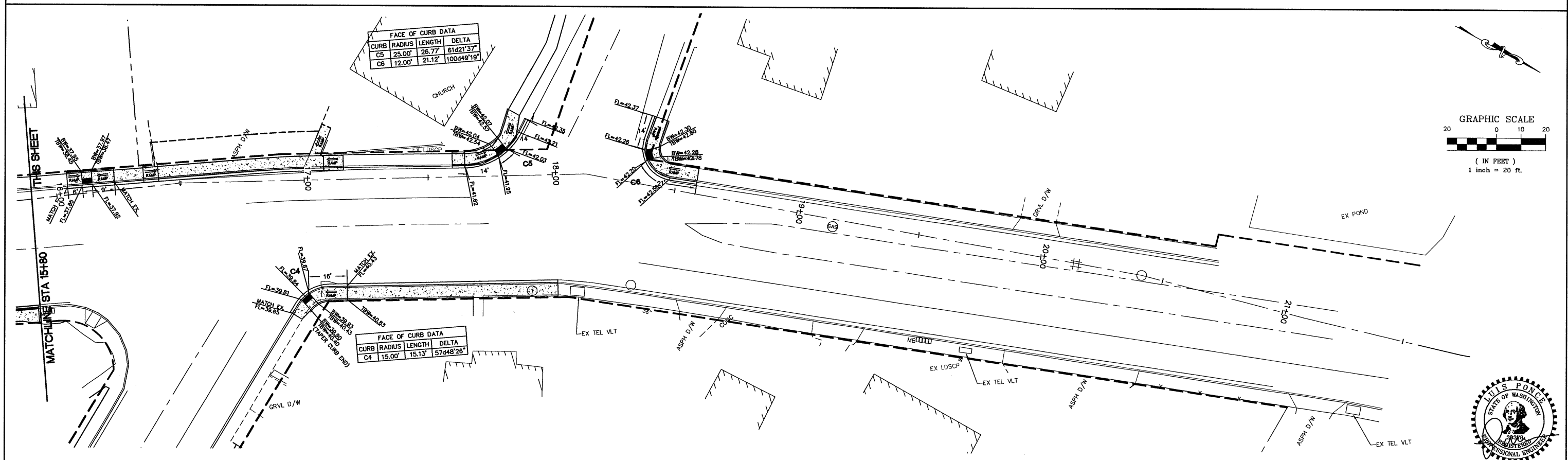
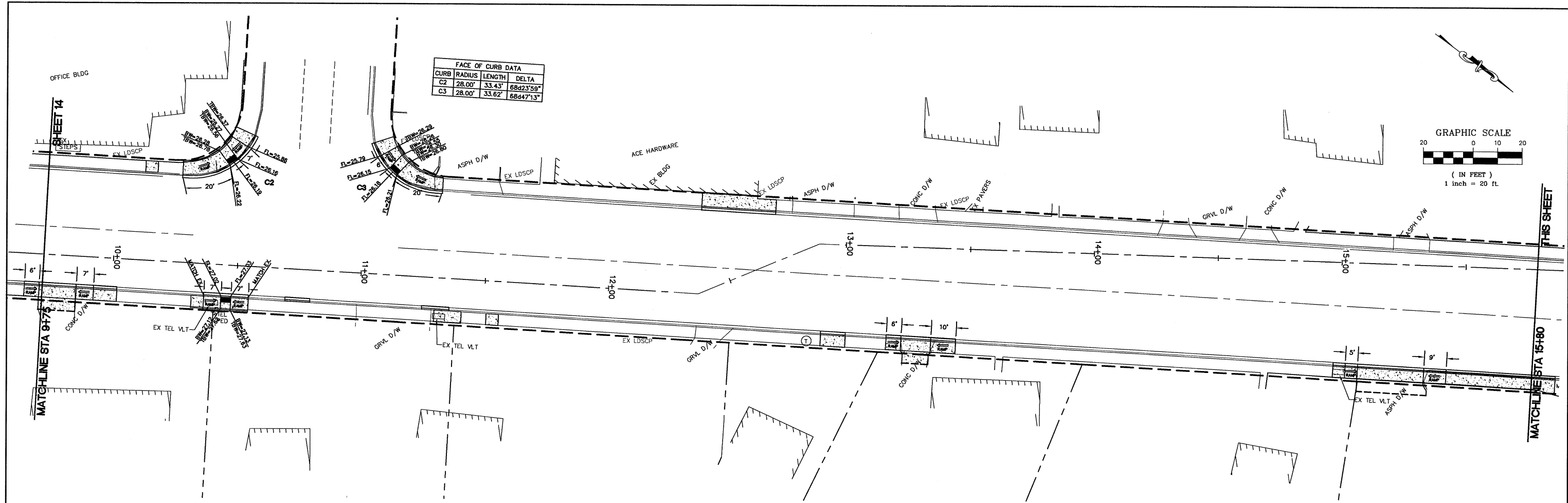
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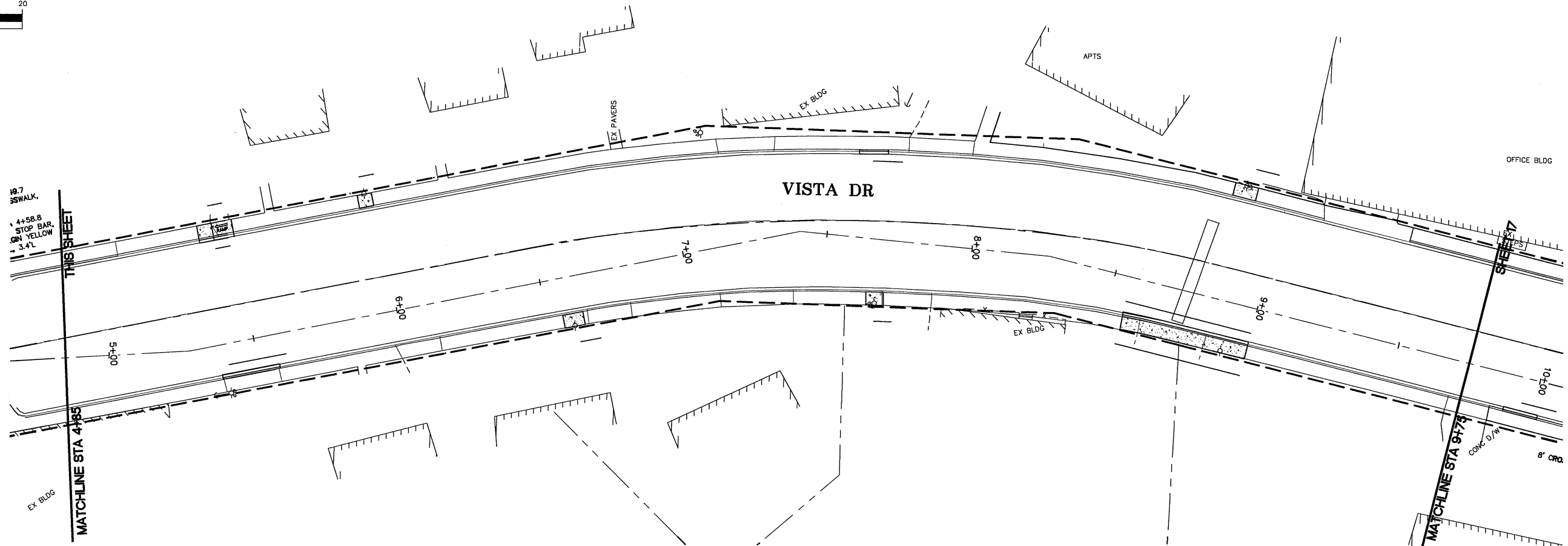
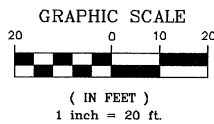
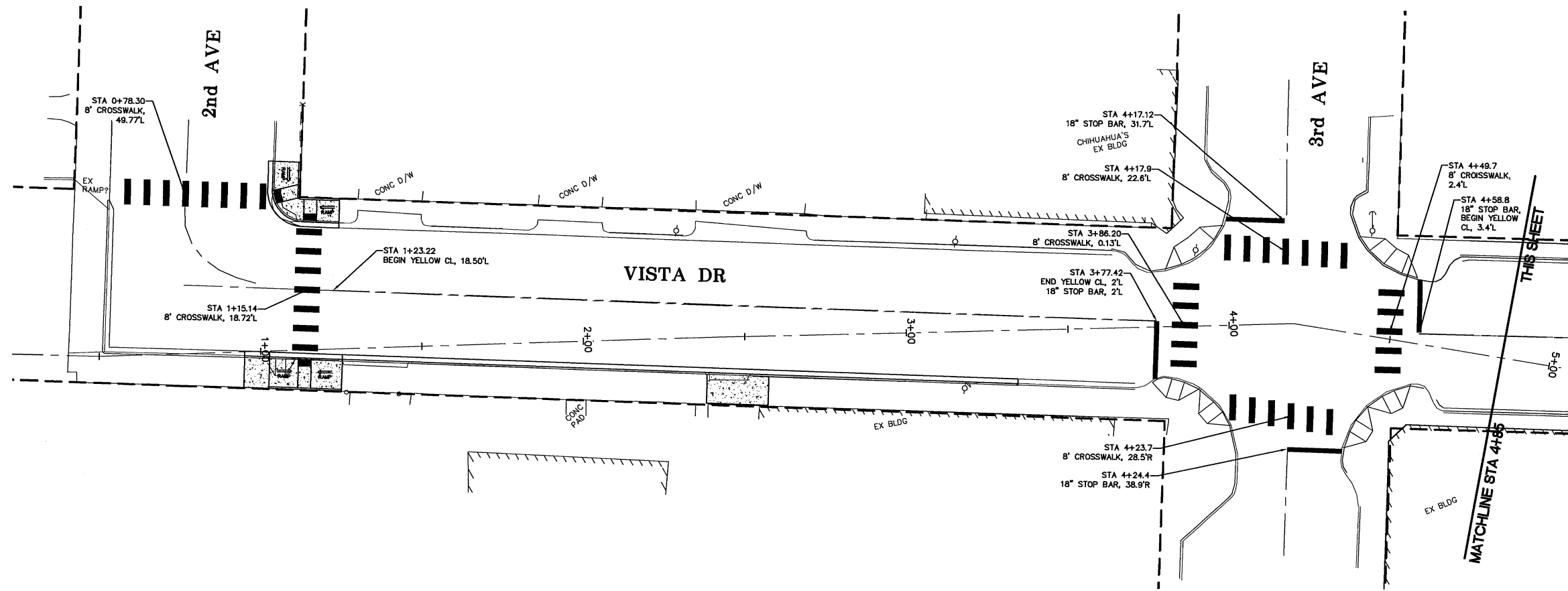
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									JOB# / DWG	DATE
									13006 DEMO	4-24-13
SCALE		H: 1"=20'		V: N/A		SHEET		15 of 22		



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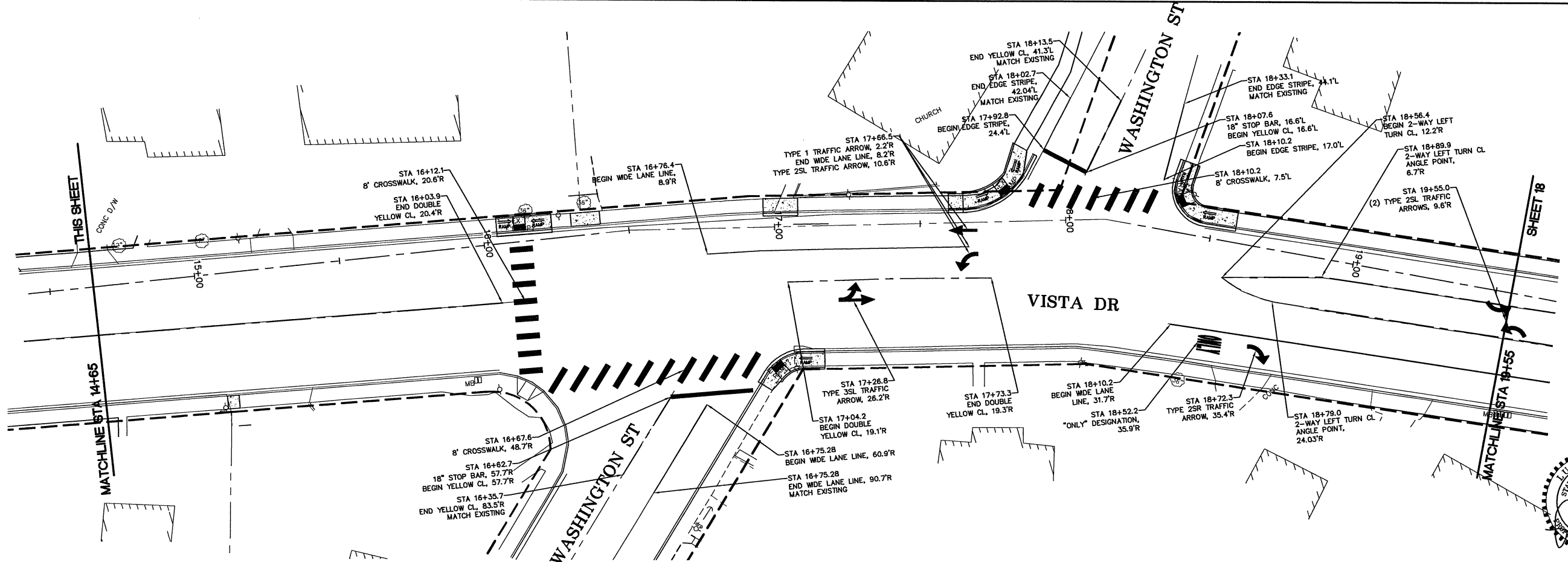
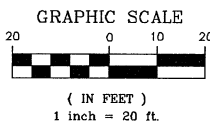
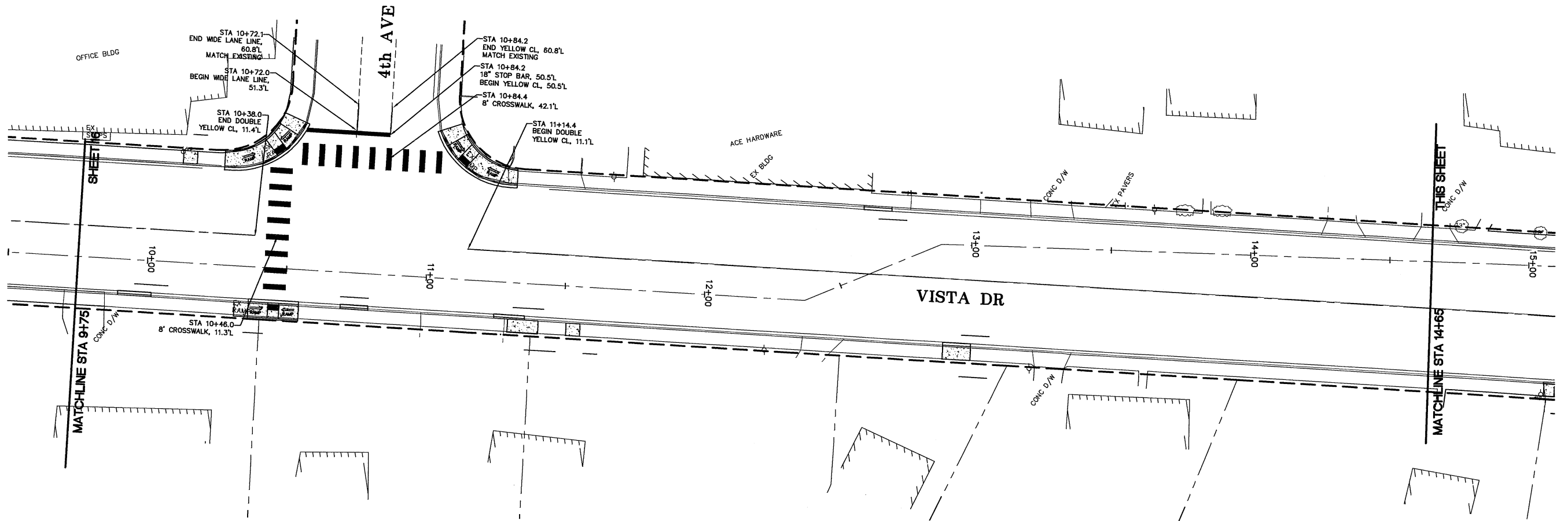
CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

VISTA SEWER RECONSTRUCTION
CHANNELIZATION PLAN

JOB# / DWG 13006	CHAN
SCALE H: 1"=20'	V: n/a

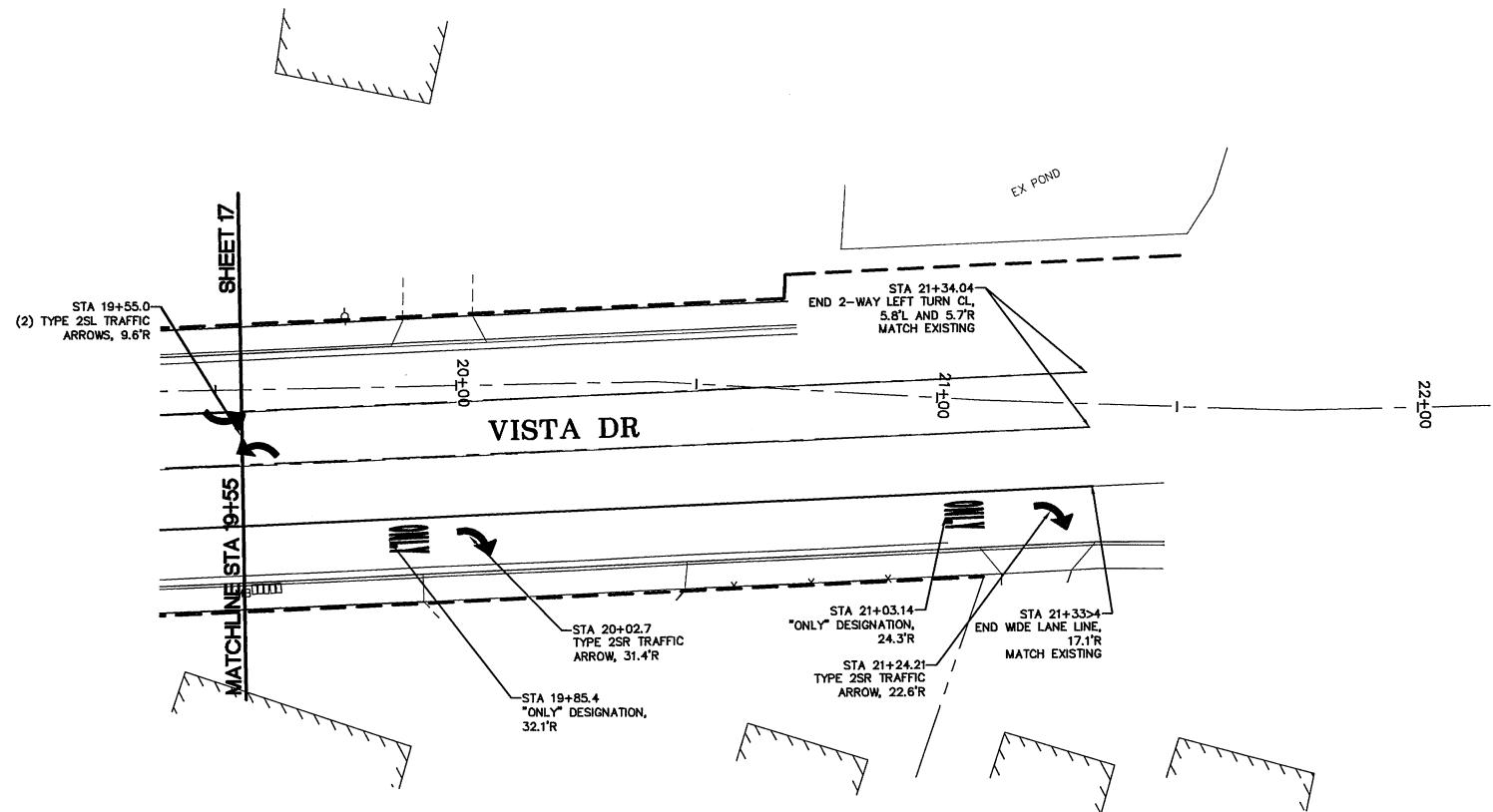
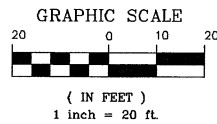
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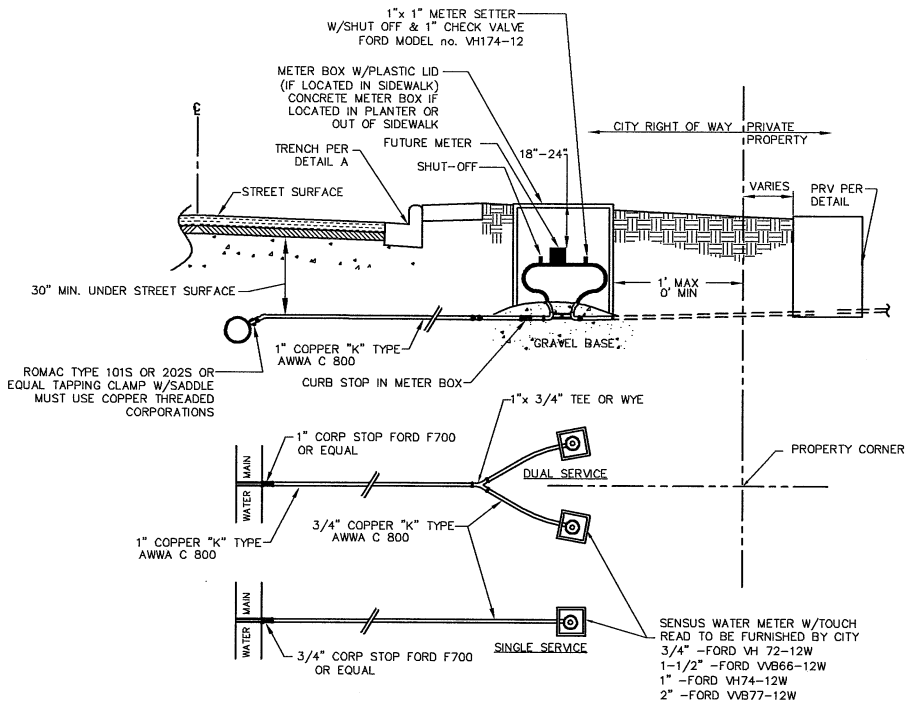
DESIGNED BY LP DRAWN BY LMC CHECKED BY	 423 Front St, Lynden, WA 98264 (360) 354-3687 813 Metcalf St, Sedro-Woolley, WA 98284 (360) 855-1713																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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4/24/13

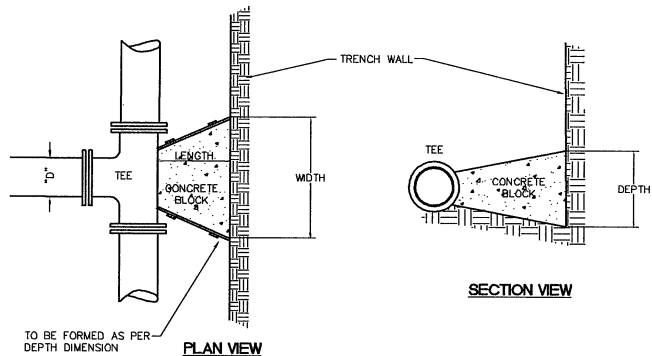
	DESIGNED BY LP	 Reichhardt & Ebe ENGINEERING INC 423 Front St., Lynden, WA 98264 (360) 354-3687 813 Metcalf St., Sedro-Woolley, WA 98284 (360) 855-1713	NO.	DATE	REVISION	BY	CITY OF FERNDAL 2095 MAIN ST FERNDAL, WA 98248	VISTA SEWER RECONSTRUCTION CHANNELIZATION PLAN	JOB# / DWG	DATE	
	DRAWN BY LMC								13006	CHAN	4-24-13
	CHECKED BY								SCALE	SHEET	
	H: 1"=20' V: n/a								18 of 22		

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WATER SERVICE CONNECTION DETAIL

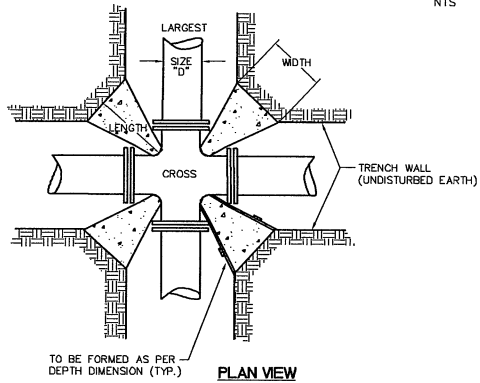
NTS



"D"	WIDTH	DEPTH	LENGTH	VOL.
6"	1'-0"	1'-6"	12"	3.0
8"	2'-0"	2'-0"	12"	4.5
10"	2'-6"	2'-6"	12"	7.0
12"	3'-0"	3'-0"	18"	14.0

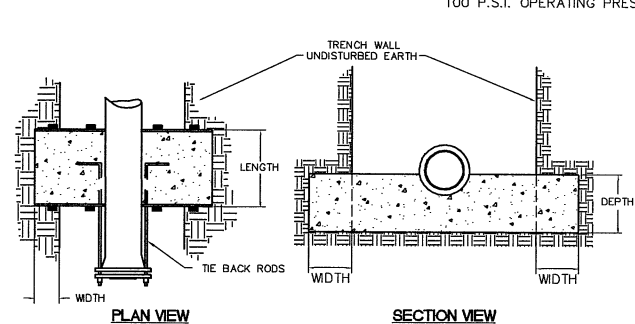
VOL. = Approx. Volume of Blocking
Material Required in cu. ft.

SOIL BEARING CAPACITY 1500 PSF MINIMUM
100 P.S.I. OPERATING PRESSURE



"D"	WIDTH	DEPTH	LENGTH	VOL.	X4 blocks/joint
6"	1'-0"	1'-0"	12"	0.63	2.50 cu ft
8"	1'-3"	1'-3"	12"	1.00	4.01 cu ft
10"	1'-6"	1'-6"	12"	1.63	6.50 cu ft
12"	1'-9"	1'-9"	18"	3.05	12.19 cu ft

VOL. = Approx. Volume of Blocking Material Required in cu. ft.

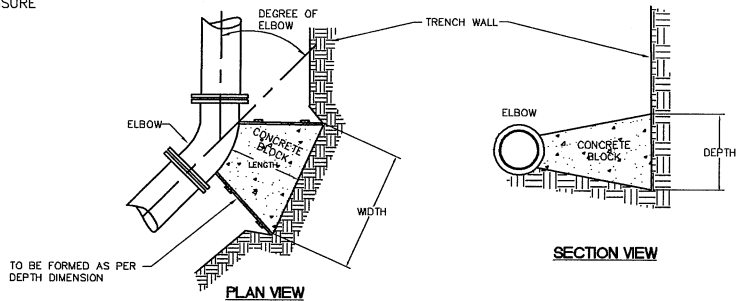


"D"	WIDTH	DEPTH	LENGTH	*VOL.	# OF RODS	ROD DIA.
6"	1'-6"	1'-6"	12"	7.5	2	1/2"
8"	2'-0"	2'-0"	18"	20.0	2	5/8"
10"	2'-6"	2'-6"	24"	37.5	2	3/4"
12"	2'-9"	2'-9"	24"	44.0	4	3/4"

*VOL. = Approx. Volume of Blocking Material Required in cu. ft.
RODS: A36 STEEL MINIMUM

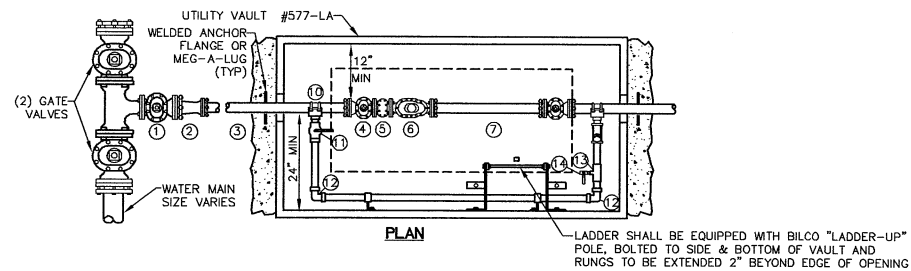
THRUST BLOCKING

NTS



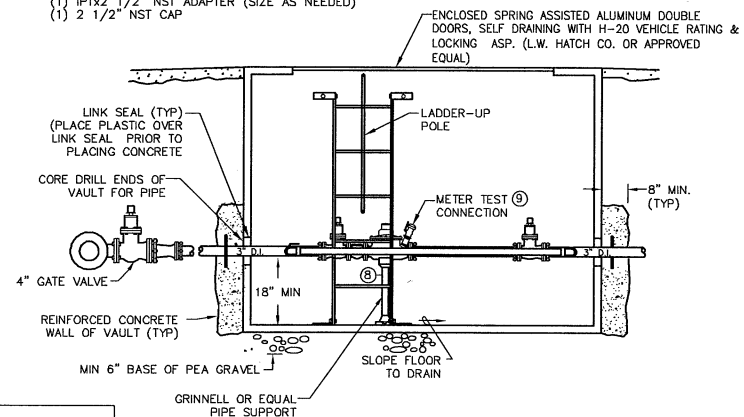
SIZE	LENGTH	11 1/4"	22 1/2"	45"	90"
6"	12"	1'-0"	1'-0"	1'-0"	1'-6"
8"	12"	1'-3"	1'-3"	1'-3"	1'-9"
10"	12"	1'-6"	1'-6"	1'-6"	2'-3"
12"	18"	2'-0"	2'-0"	2'-0"	3'-0"

VOL. = Approx. Volume of Blocking Material Required in cu. ft.



- (1) 4" GATE VALVE (FL)
(2) 4"x3" REDUCER (FLxRJ) (ONLY W/ 3" METER)
(3) 3" OR 4" D.I. PIPE, LENGTH AS REQUIRED
(4) 2" 3" OR 4" GATE VALVES (FLxRJ), WHEEL OPERATED
(5) 1" 3" OR 4" BRONZE BASKET STRAINER (FL)
(6) 1" 3" OR 4" SENSUS TOUCH READ METER (FL)
WITH TEST NIPPLE & VALVE
(7) 1" 3" OR 4" UNI-FLANGE SPOOL, LENGTH AS REQ'D
(8) 2" ADJUSTABLE PIPE SUPPORTS
(9) 2-1/2" NST (FIRE HOSE) METER TEST CONNECTION:
(1) BRASS NIPPLE (LENGTH AND SIZE AS NEEDED)
(1) BRASS GATE VALVE (SIZED AS NEEDED)
(1) IPTx2 1/2" NST ADAPTER (SIZE AS NEEDED)
(1) 2 1/2" NST CAP

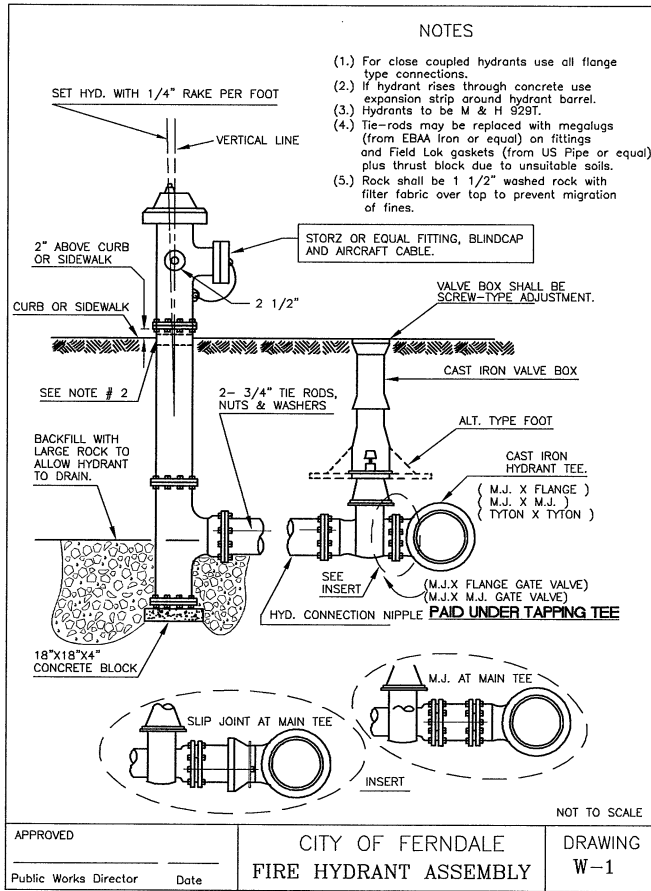
- 2" BY-PASS ASSEMBLY:
(1) 2" SADDLES W/ STAINLESS STL DOUBLE STRAPS
(1) 2" BALL VALVE (IP)
(2) 2" 90° BENDS (IP)
(3) 1" 2" x 3/4" TEE (IP)
(4) 1" 3/4" BALL VALVE (IP)
2" PIPE (LENGTH AS NEEDED)
SECURE PIPE TO VAULT WALL
ALL 2" PIPE & FITTINGS SHALL BE BRASS.



METER SUPPLIED BY CITY OF FERNDALE

CITY OF FERNDALE 3" METER INSTALLATION

NTS



4/24/13

DESIGNED BY
LP
DRAWN BY
LMC
CHECKED BY



Reichhardt & Ebe
ENGINEERING INC

423 Front St, Lynden, WA 98264 (360) 354-3687
813 Metcalf St, Sedro-Woolley, WA 98284 (360) 855-1713

NO.

DATE

REVISION

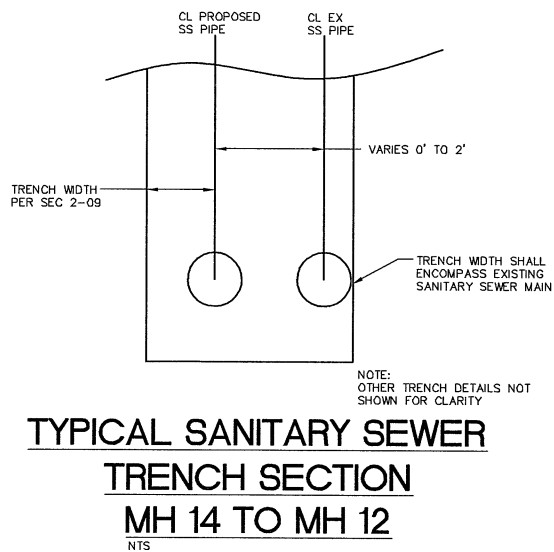
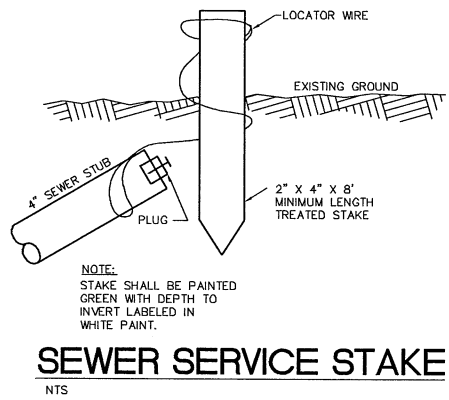
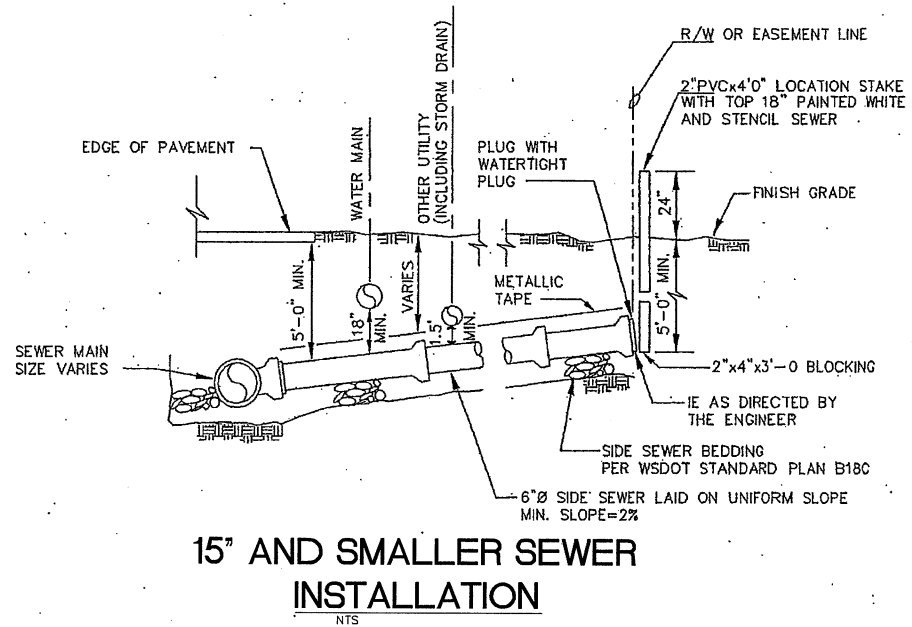
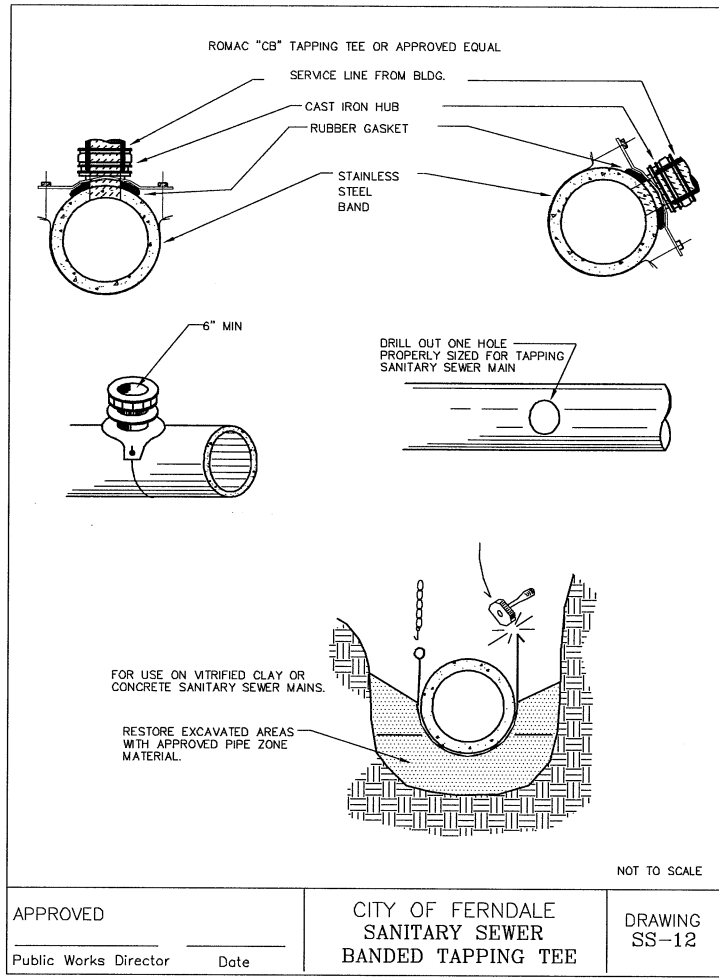
BY

CITY OF FERNDALE
2095 MAIN ST
FERNDALE, WA 98248

VISTA SEWER RECONSTRUCTION
WATER DETAILS

JOB# / DWG
13006 DET
SCALE
H:N/A V:N/A

DATE
4-24-13
SHEET
19 of 22



DESIGNED BY LP	R&E Reichhardt & Ebe ENGINEERING INC 423 Front St, Lynden, WA 98264 (360) 354-3687 813 Metcalf St, Sedro-Woolley, WA 98284 (360) 855-1713	NO.	DATE	REVISION	BY	CITY OF FERNDAL 2095 MAIN ST FERNDAL, WA 98248	VISTA SEWER RECONSTRUCTION SEWER DETAILS	JOB# / DWG 13006 DET	DATE 4-24-13
DRAWN BY LMC								SCALE H: N/A V: N/A	SHEET
CHECKED BY									20 of 22

ALL FRAMES, COVERS AND VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADE AFTER THE FINAL LIFT OF PAVING HAS BEEN COMPLETED. THE FOLLOWING PROCEDURE SHALL BE USED:

1. CUT THE ASPHALT IN AN EVEN CIRCLE AROUND THE STRUCTURE CASTING TO BE ADJUSTED.
2. REMOVE THE FILL MATERIAL WITHIN THE CUT PAVEMENT AREA TO 8 INCHES MIN. BELOW FINISH GRADE.
3. PLACE THE CASTING AT FINISH GRADE.
4. PLACE PORTLAND CEMENT CONCRETE TO WITHIN THE TOP 2 INCHES OF FINISH GRADE.
5. APPLY TACK TO THE STRUCTURE CASTING, CUT PAVEMENT, AND PC CONCRETE.
6. PLACE AND COMPACT 2 INCHES OF HMA TO FINISH GRADE.
7. SEAL PAVEMENT JOINTS WITH HOT AR4000 AND TOP WITH SAND.



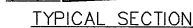
NTS



NTS



NTS



NOTES:

NOTES:
CONTRACTION JOINTS OF ONE OF THE TYPES SHOWN ABOVE TO BE PLACED 10' C/C. JOINTS COMPLETELY SEVER THE
STRUCTURE TO THE POINTS SHOWN. JOINTS MAY BE MADE BY INSERTING MIN. 3/16" BITUMINOUS FILLER DUMMY JOINTS.
JOINTS SHALL BE CLEANED AND EDGED

3/4" EXPANSION JOINTS TO BE PLACED AT DRIVEWAY SECTIONS, CURB RETURNS, CURB RAMPS AND COLD JOINTS OR A MAX. OF 80' C/O. EXPANSION JOINTS SHALL PROTRUDE 1" BELOW THE BOTTOM OF THE GUTTER.

CURB DRAINS SHALL BE CONSTRUCTED OF 2" PVC PIPE OR OTHER MATERIAL SUBJECT TO APPROVAL OF THE ENGINEER, CUT TO LENGTH TO PASS FROM THE BACK OF CURB THROUGH THE CURB TO THE FACE OF THE CURB AT THE GUTTER. LAYOUT SPACING WILL BE MAXIMUM 50 FEET CENTER TO CENTER, AND/OR EACH SIDE OF THE DRIVEWAYS AND AT SUCH LOCATIONS AS DESIGNATED BY THE ENGINEER.

CURB AND GUTTER DETAILS

NTS

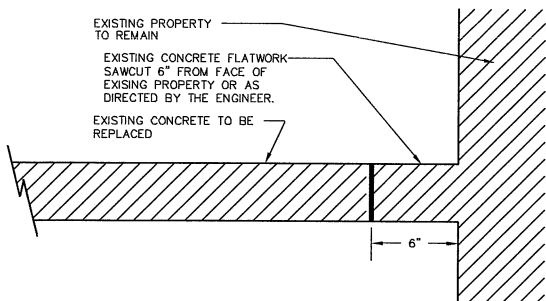


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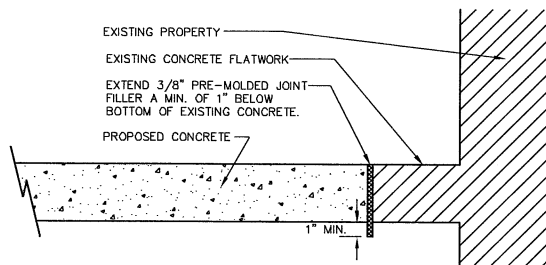


NTS NOTE:
LOCATION, WIDTH AND LENGTH AS MARKED IN FIELD BY ENGINEER
AND PER THE PAVEMENT REPAIR SCHEDULE.

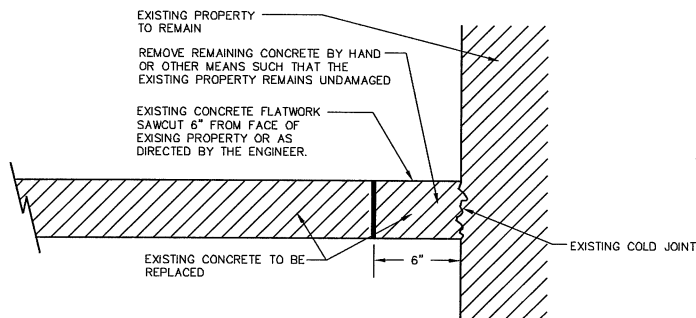
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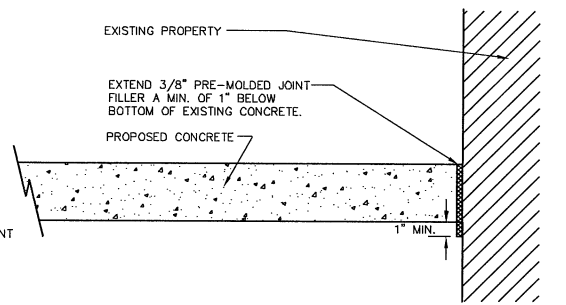
SAWCUT DETAIL WHERE EXISTING PROPERTY TO REMAIN
DETAIL 'A'
NTS



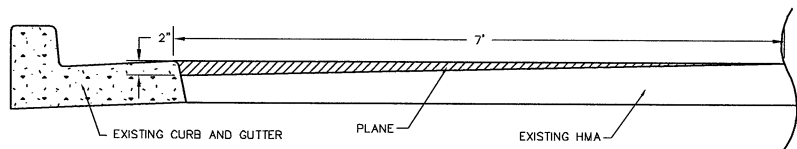
PROPOSED CONCRETE AT EXISTING CONCRETE FLATWORK
WHERE EXISTING PROPERTY TO REMAIN
NTS



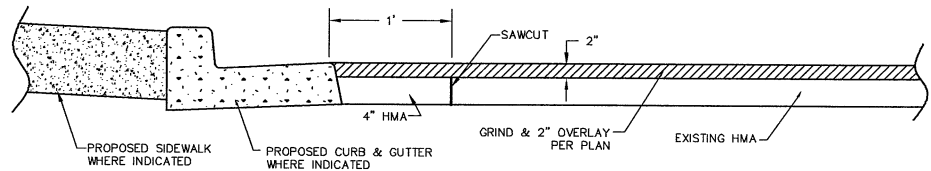
REMOVAL DETAIL WHERE ALL EXISTING FLATWORK REMOVED
DETAIL 'B'
NTS



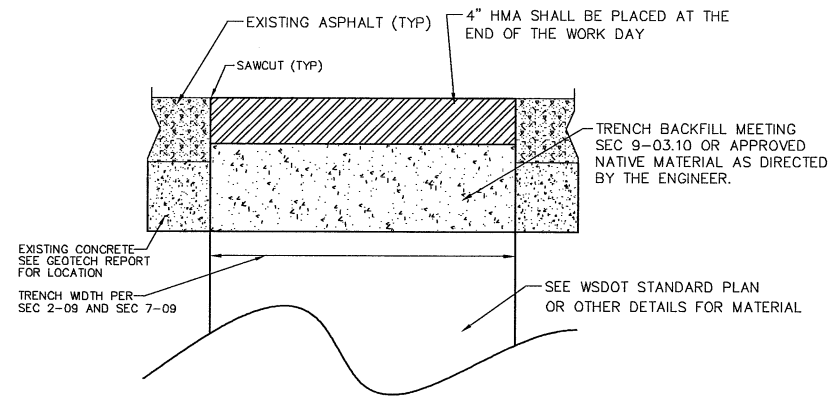
PROPOSED CONCRETE WHERE ALL EXISTING FLATWORK REMOVED
NTS



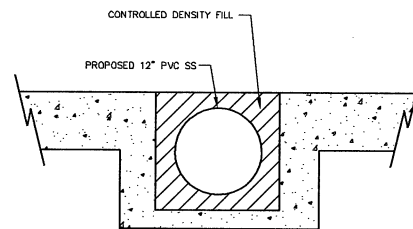
PLANING BITUMINOUS PAVEMENT AT EXISTING CURB, LT AND RT
NTS



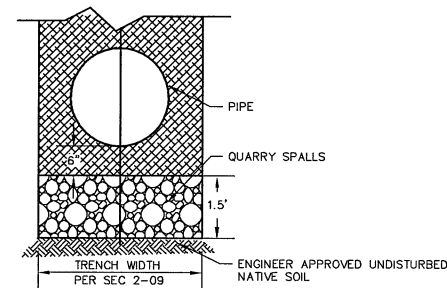
TYPICAL CURB, GUTTER AND SIDEWALK
REMOVAL/REPLACEMENT SECTION
NTS



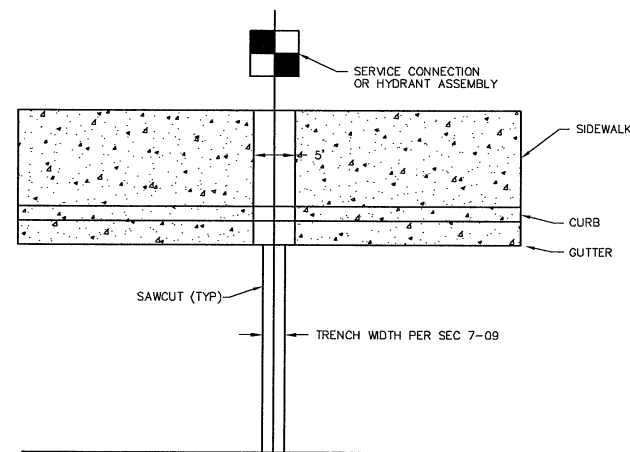
SANITARY, STORM, AND WATER MAIN
TRENCH TYPICAL SECTION
NTS



EXISTING SANITARY SEWER BLOCKOUT
SEWER ALIGNMENT STA 8+65 TO STA 8+85
NTS



REMOVAL OF UNSUITABLE MATERIAL
INCLUDING HAUL, TYPICAL SECTION
NTS



DETAIL A
PAVEMENT, CURB, GUTTER, AND SIDEWALK REMOVAL
AT SERVICE CONNECTION OR HYDRANT ASSEMBLY (TYP)
NTS



4/24/13

DESIGNED BY LP	R&E Reichhardt & Ebe ENGINEERING INC	NO.	DATE	REVISION	BY	CITY OF FERNDAL 2095 MAIN ST FERNDAL, WA 98248	VISTA SEWER RECONSTRUCTION MISC DETAILS	JOB# / DWG 13006 DET	DATE 4-24-13
								SCALE H: N/A V: N/A	SHEET 22 of 22