

LEGEND:

NEW WALLS TO BE FRAMED =

NEW OVERHEAD SUPPORT BEAM _______

SCOPE OF WORK:

GARAGE ADDITION, 22'x40'

GENERAL NOTES:

- 1. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS BEFORE STARTING CONSTRUCTION.
- 2. ALL DIMENSIONS ARE TO FRAMING POINTS. (FIELD VERIFY ALL DIMENSIONS).

FRAMING DATA:

- 1. ALL HEADERS #2 AND BETTER AS SHOWN UNLESS OTHERWISE NOTED.
- 2. ALL 2x MATERIAL #2 AND BETTER EXCEPT TREATED.
- 3. ANCHOR ROOF RAFTERS TO DOUBLE TOP PLATE BY INSTALLING SIMPSON H1 SEISMIC ANCHOR EACH RAFTER, OR EQUAL ANCHOR.
- 4. SIMPSON HANGERS ARE CALLED OUT IN THIS DESIGN, INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.
- 5. NAILING FOR SHEAR WALL AND ROOF SHEALTHING:
 NAIL 8d EDGE NAIL SPACING, 6" O.C., FILED NAIL
 SPACING, 12" O.C.
 STAGGER EDGE NAILING WITH ADJOINING PANEL.

STRUCTURAL NOTES:

DESIGN CRITERIA:
WIND LOAD - 85 MPH
ROOF LOAD - DL = 15PSF
SL = 20PSF
ATTIC FLOOR LOAD - DL = 12PSF

SEISMIC ZONE – D2 LL = 40PSF

2000PSF (ALLOWABLE BEARING PRESSURE)
40PSF/FT (ACTIVE LATERAL PRESSURE OF RETAINED EARTH)
60PSF/FT (AT-REST LATERAL PRESSURE OF RETAINED EARTH)

CONCRETE:
2500PSI FOR SLABS AND WALLS. MINIMUM 5 1/2
SACKS OF CEMENT PER CUBIC YARD OF CONCRETE
AND 6 3/4 GALLONS OF WATER PER 94LB. SACK OF CEMENT.
MAXIMUM AGGREATE SIZE IS 1 1/2"
VIBRATE ALL CONCRETE WALLS WHEN POURING.

REINFORCING STEEL:
CONCRETE REINFORCEMENT SHALL BE DETAILED,
FABRICATED AND PLACED IN ACCORDANCE WITH
ACI 318-02.
REINFORCING STEEL SHALL BE DEFORMED BILLET
STEEL CONFORMING TO ASTM A-615.

AKIHIRO NAKAMURA - GARAGE ADDITION PROJECT

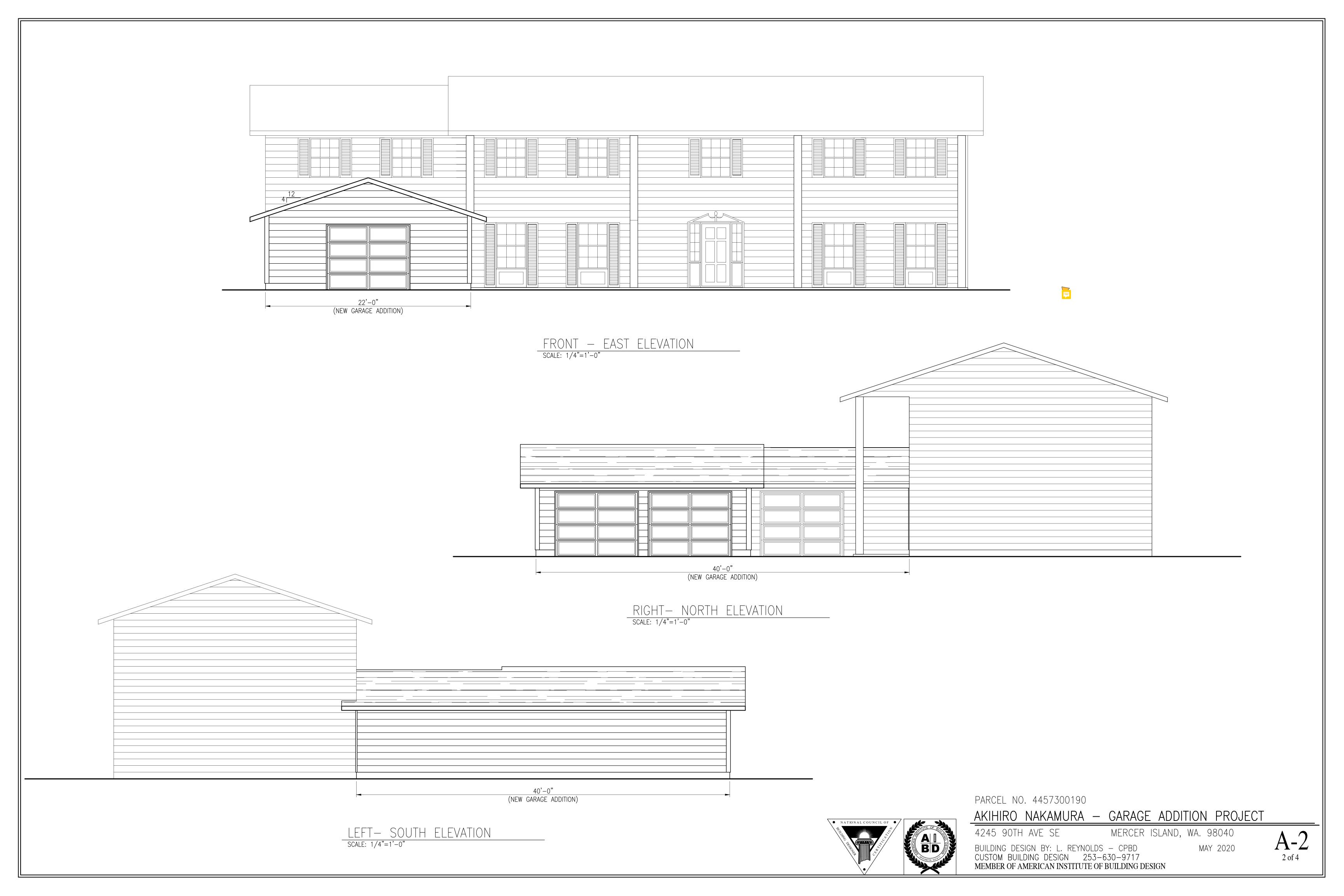
4245 90TH AVE SE

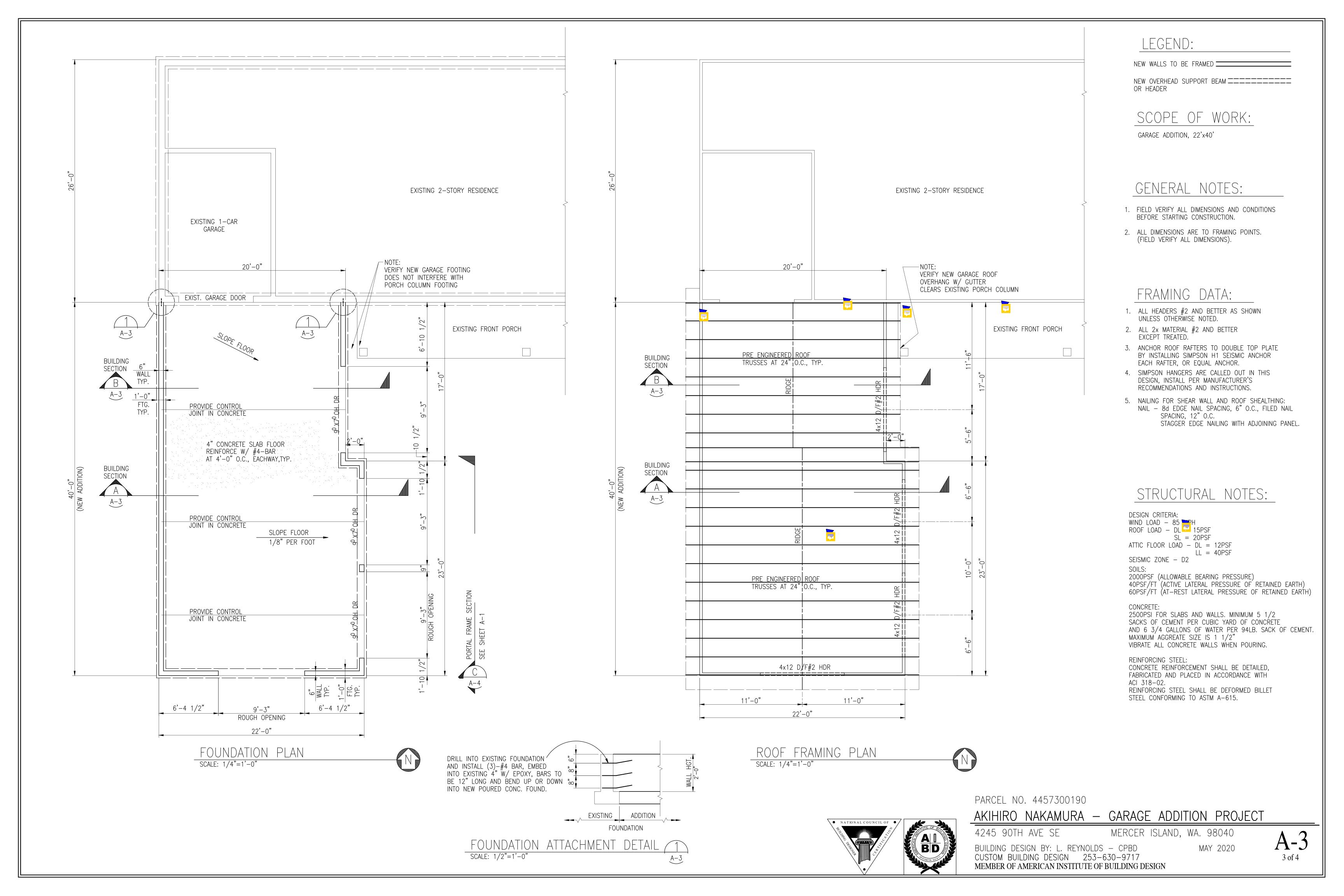
MERCER ISLAND, WA. 98040

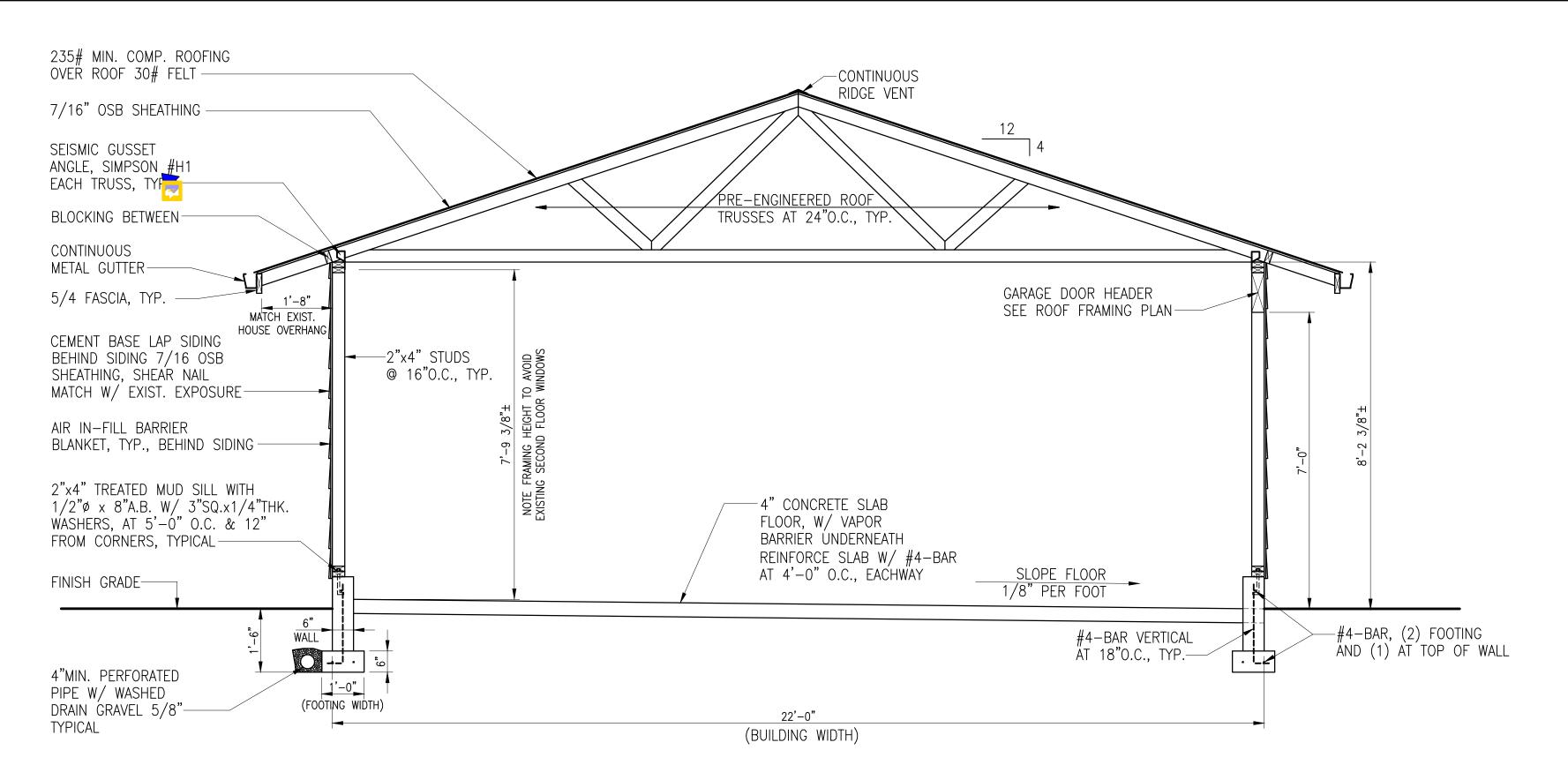
BUILDING DESIGN BY: L. REYNOLDS — CPBD CUSTOM BUILDING DESIGN 253—630—9717 MEMBER OF AMERICAN INSTITUTE OF BUILDING DESIGN

MAY 2020

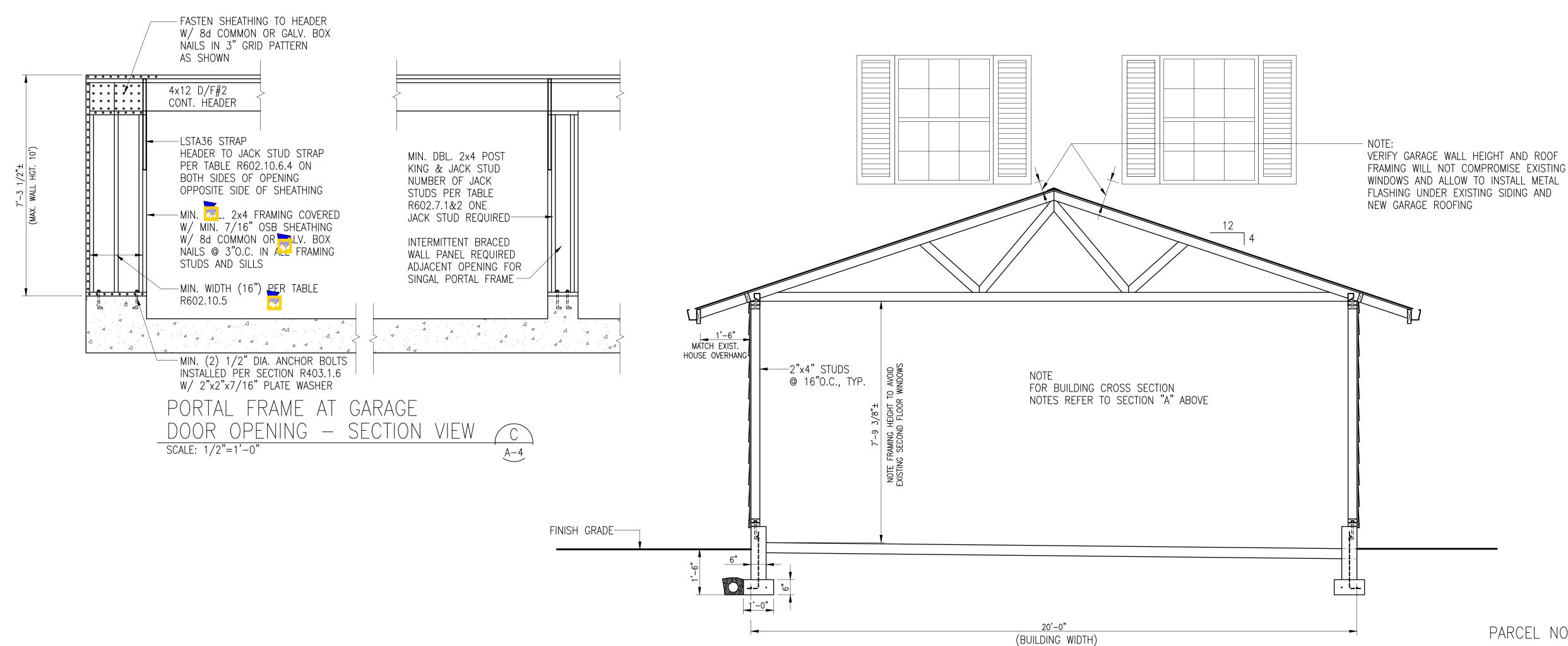
A-1











GENERAL NOTES:

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REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A-615.

PARCEL NO. 4457300190

AKIHIRO NAKAMURA - GARAGE ADDITION PROJECT

4245 90TH AVE SE

MERCER ISLAND, WA. 98040

BUILDING DESIGN BY: L. REYNOLDS - CPBD CUSTOM BUILDING DESIGN 253-630-9717 MEMBER OF AMERICAN INSTITUTE OF BUILDING DESIGN MAY 2020

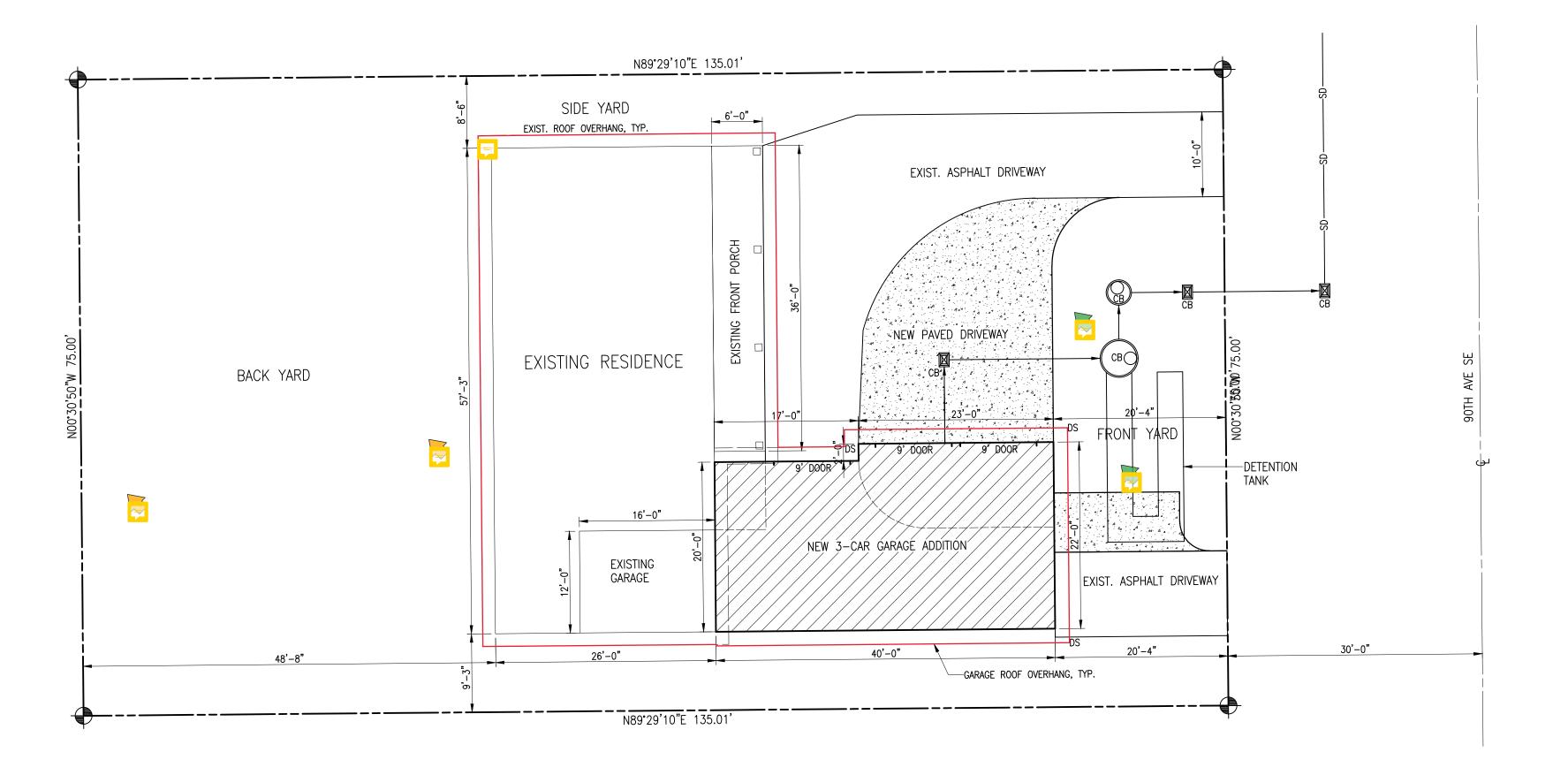
A-4

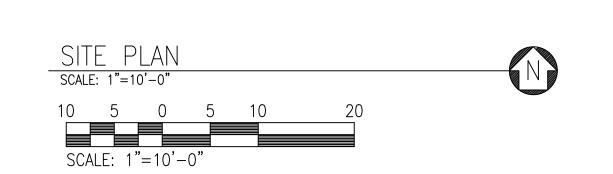
4 of 4

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LOT COVERAGE: LOT SIZE: 10,125 SQ.FT. EXIST. HOUSE & FRONT PORCH FOOT PRINT 1704.5 SQ.FT. NEW GARAGE ADDITION FOOT PRINT 846 SQ.FT. TOTAL FOR EXIST. AND ADDITION 2550.5 SQ.FT. 1161 SQ.FT. EXIST. ASPHALT DRIVEWAY REMAINING NEW PAVED DRIVEWAY 684 SQ.FT. TOTAL STRUCTURE AND DRIVEWAY COVERAGE 4395.5 SQ.FT. 43% LOT COVERAGE



PARCEL NO. 4457300190

AKIHIRO NAKAMURA - GARAGE ADDITION PROJECT

4245 90TH AVE SE

MERCER ISLAND, WA. 98040

MAY 2020

BUILDING DESIGN BY: L. REYNOLDS — CPBD CUSTOM BUILDING DESIGN 253—630—9717 MEMBER OF AMERICAN INSTITUTE OF BUILDING DESIGN

C-1

LEGAL DESCRIPTION

(PER QUIT CLAIM DEED REC. NO. 20190731000807)

LOT 6, BLOCK 3, LUCAS HEIGHTS, ACCORDING TO THE PLAT THEREOF RECORDED IN VOLUME 17 OF PLATS, PAGE 5, IN KING COUNTY, WASHINGTON;

TOGETHER WITH THE EAST HALF OF THAT PORTION OF VACATED ALLEY ADJOINING ON THE WEST, WHICH ATTACHED THERETO BY OPERATION OF LAWS AS THE VACATION WAS FILED ON MAY 26, 1960 UNDER VAULT FILE NO. 3808910.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

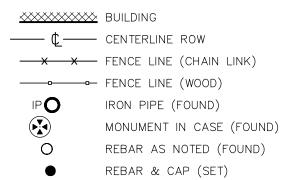
BASIS OF BEARINGS

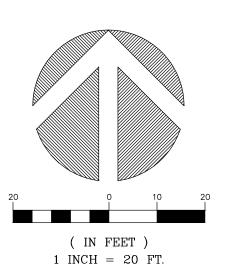
HELD A BEARING OF N 26°03'25" E BETWEEN FOUND MONUMENTS

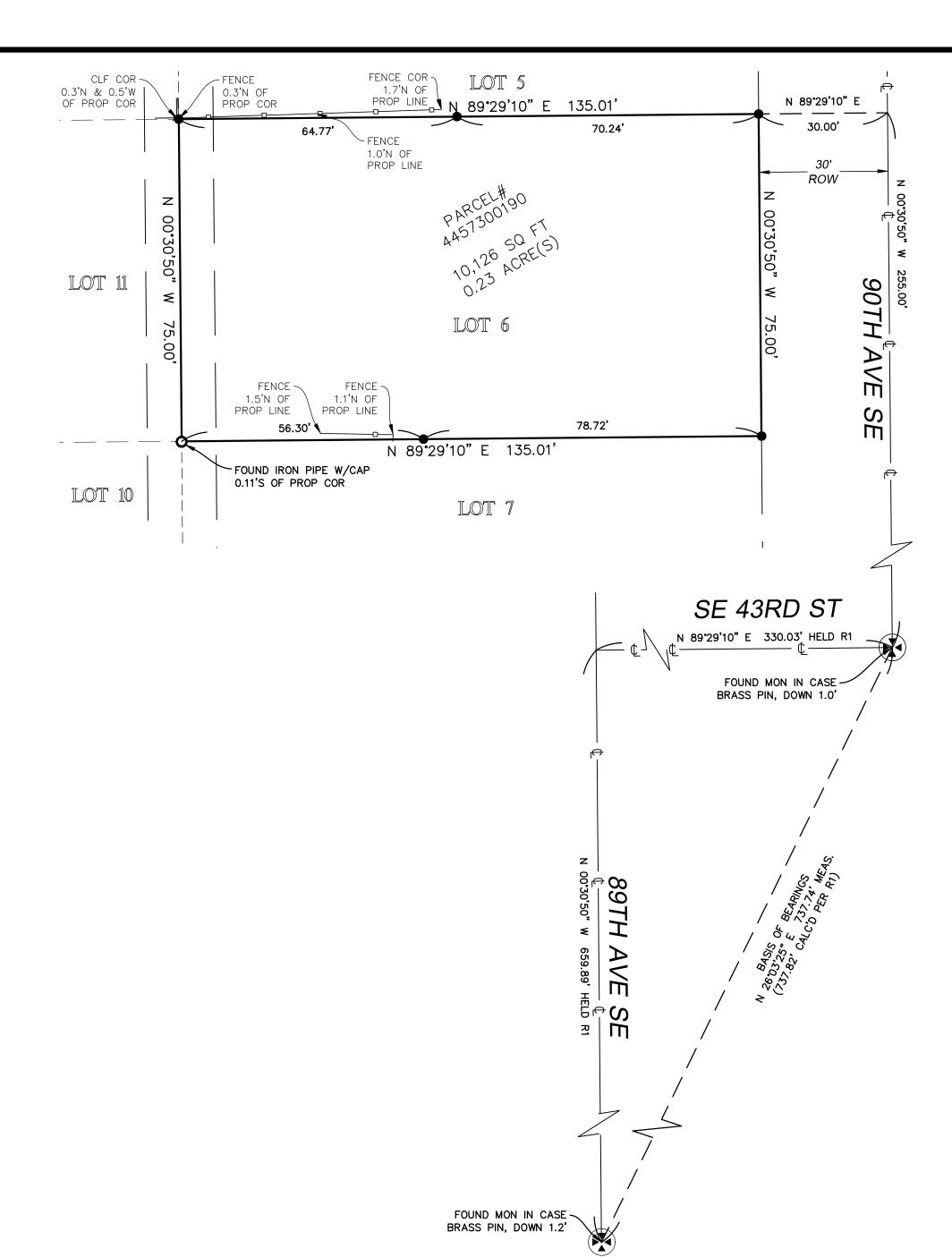
SURVEYOR'S NOTES

- 1. THE SURVEY SHOWN HEREON WAS PERFORMED IN MAY OF 2020. THE FIELD DATA WAS COLLECTED AND RECORDED ON MAGNETIC MEDIA THROUGH AN ELECTRONIC THEODOLITE. THE DATA FILE IS ARCHIVED ON DISC OR CD. WRITTEN FIELD NOTES MAY NOT EXIST. CONTOURS ARE SHOWN FOR CONVENIENCE ONLY. DESIGN SHOULD RELY ON SPOT ELEVATIONS.
- 2. ALL MONUMENTS SHOWN HEREON WERE LOCATED DURING THE COURSE OF THIS SURVEY UNLESS OTHERWISE NOTED.
- 3. SUBJECT PROPERTY TAX PARCEL NO. 4457300190
- 4. THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE REPORT. EASEMENTS AND OTHER ENCUMBRANCES MAY EXIST THAT ARE NOT SHOWN HEREON.
- 5. FIELD DATA FOR THIS SURVEY WAS OBTAINED BY DIRECT FIELD MEASUREMENTS WITH A CALIBRATED ELECTRONIC 5-SECOND TOTAL STATION AND/OR SURVEY GRADE GPS OBSERVATIONS. ALL ANGULAR AND LINEAR RELATIONSHIPS ARE ACCURATE AND MEET THE STANDARDS SET BY WAC

LEGEND







RECORDER'S CERTIFICATE

FILED FOR RECORD THIS_____ DAY OF_____, 20__. AT IN BOOK_____ OF SURVEYS. AT PAGE____, AT THE REQUEST OF TERRANE, INC. MANAGER SUPT. OF RECORDS

SURVEYOR'S CERTIFICATE

THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF AKIHIRO NAKAMURA.

5/07/20 JACOB GOODMAN MILLER CERTIFICATE NO. 56654

REFERENCES

R1. UNRECORDED SURVEY BY M.W. MARSHALL, JOB NO. 1516-A, DATED 11-26-2012.

JOB NO.: **200606** DATE: 05/07/20

DRAFTED BY: JPH

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NAKAMUF PARCEL NO

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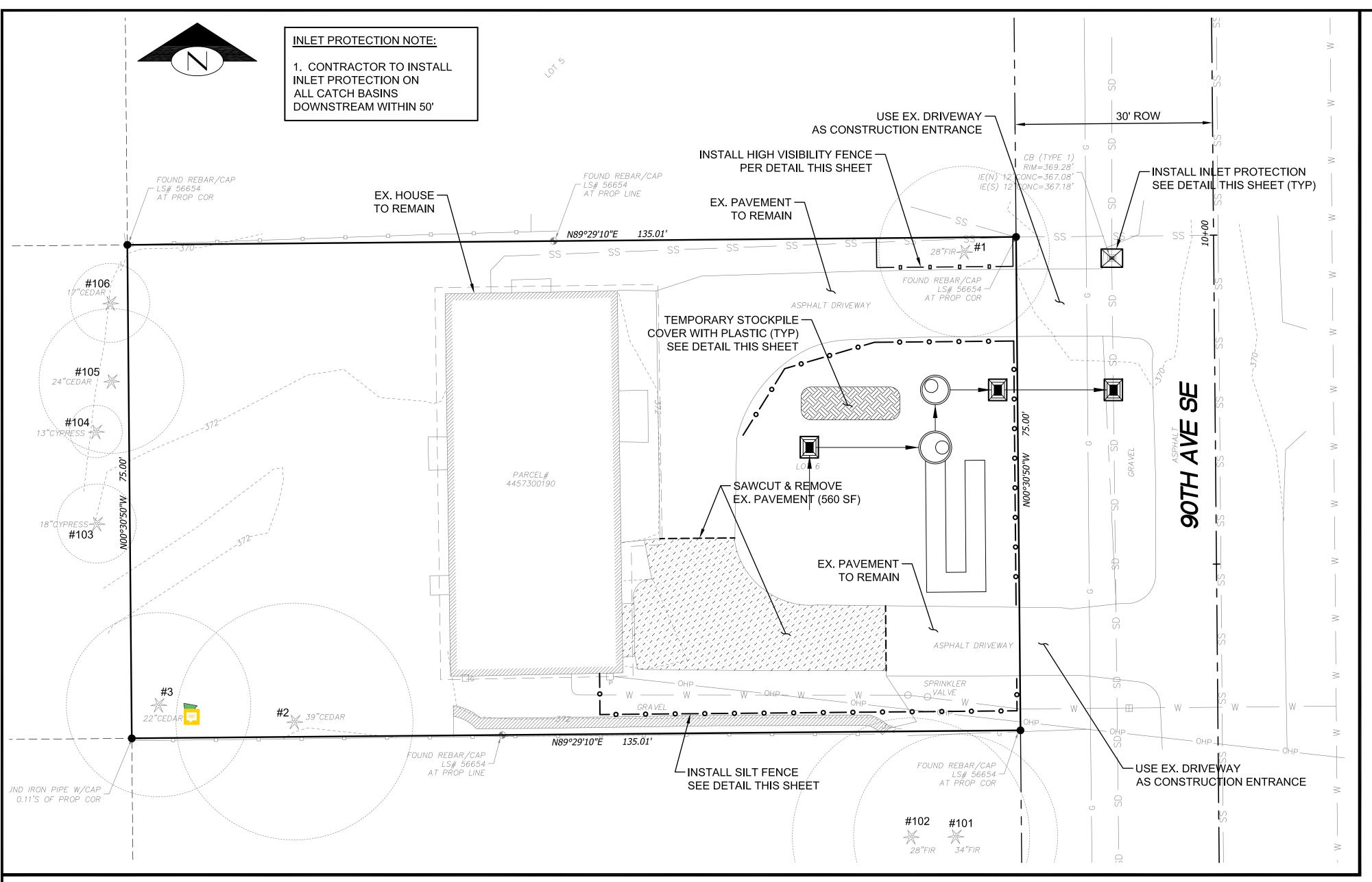
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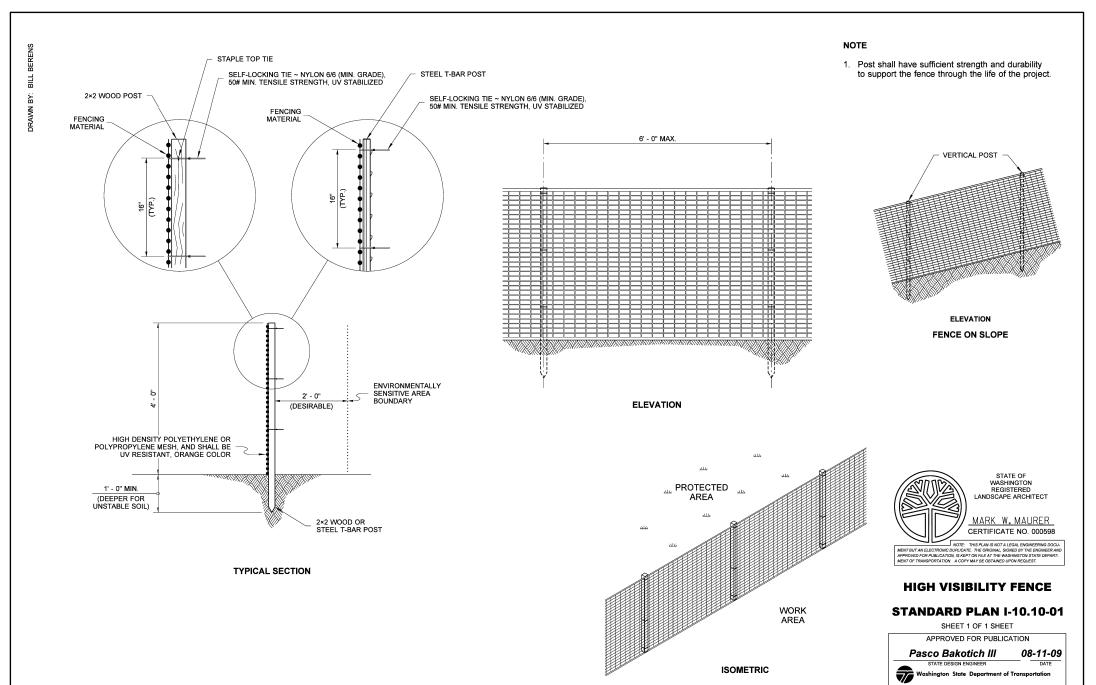
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OF **1**

CHECKED BY: JGM SCALE: 1" = 20'





STABILIZE SOILS:

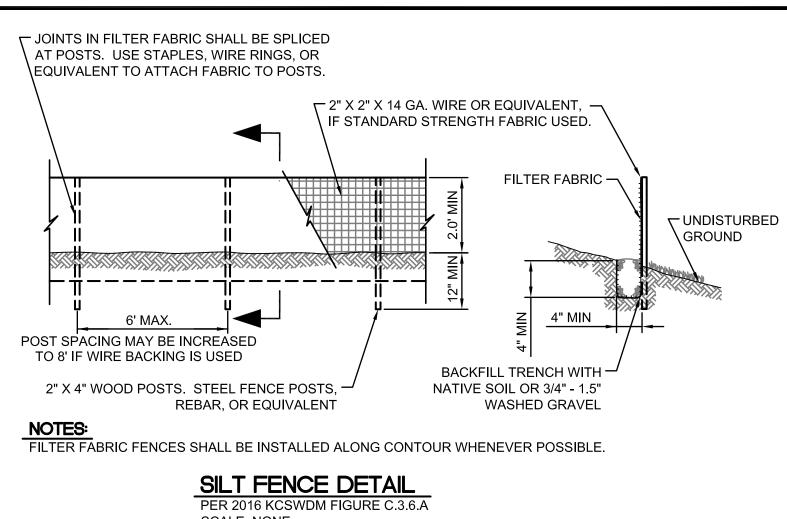
TEMPORARY COVER MEASURES SHALL BE PROVIDED WHEN NECESSARY TO PROTECT DISTURBED AREAS. THE INTENT OF THESE MEASURES IS TO PREVENT EROSION BY HAVING AS MUCH AREA AS POSSIBLE COVERED DURING ANY PERIOD OF PRECIPITATION. TOPSOIL LAYERS SHALL BE RETAINED AND PROTECTED TO THE MAXIMUM EXTENT FEASIBLE. ANY TOPSOIL THAT IS STOCKPILED ONSITE SHALL BE COVERED TO PREVENT EROSION AND SATURATION, AND SHALL BE REUSED IN LANDSCAPED AREAS UPON COMPLETION OF THE GROUND DISTURBING ACTIVITIES. TEMPORARY COVER SHALL BE INSTALLED IF AN AREA IS TO REMAIN UNWORKED FOR MORE THAN 7 DAYS DURING THE DRY SEASON (MAY 1 TO SEPTEMBER 30) OR FOR MORE THAN TWO CONSECUTIVE WORKING DAYS DURING THE WET SEASON (OCTOBER 1 TO APRIL 30). COVER METHODS INCLUDE THE USE OF SURFACE ROUGHENING, MULCH, EROSION CONTROL NETS AND BLANKETS, PLASTIC COVERING, SEEDING, AND SODDING. MULCH AND PLASTIC SHEETING ARE PRIMARILY INTENDED TO PROTECT DISTURBED AREAS FOR A SHORT PERIOD OF TIME, TYPICALLY DAYS TO A FEW MONTHS. SEEDING AND SODDING ARE MEASURES FOR AREAS THAT ARE TO REMAIN UNWORKED FOR MONTHS. EROSION NETS AND BLANKETS ARE TO BE USED IN CONJUNCTION WITH SEEDING STEEP SLOPES

GENERAL NOTE:

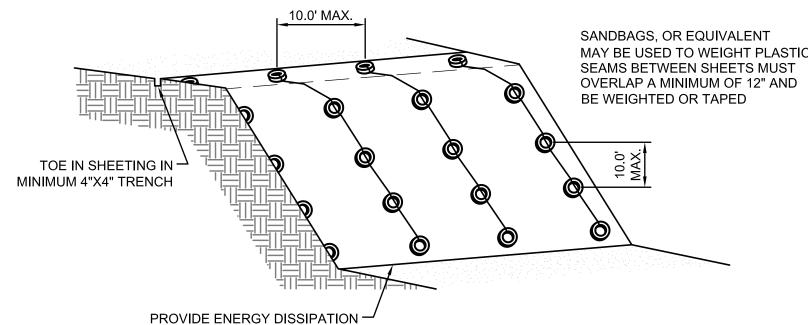
1. LAND CLEARING, GRADING, FILLING, AND FOUNDATION WORK ARE NOT PERMITTED BETWEEN OCTOBER 1ST AND APRIL 1ST. ANY WORK THAT IS PROPOSED DURING THE WET SEASON MUST SUBMIT A SEASONAL DEVELOPMENT LIMITATION WAIVER FOR APPROVAL BY THE BUILDING OFFICIAL

PROJECT ENGINEER'S CERTIFICATION:

I HEREBY STATE THAT THIS CONSTRUCTION STORMWATER POLLUTION PREVENTION PLAN FOR NAKAMURA RESIDENCE HAS BEEN PREPARED BY ME OR UNDER MY SUPERVISION AND MEETS THE STANDARD OF CARE AND EXPERTISE WHICH IS USUAL AND CUSTOMARY IN THIS COMMUNITY OF PROFESSIONAL ENGINEERS. I UNDERSTAND THAT THE CITY OF MERCER ISLAND DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE SUFFICIENCY, SUITABILILTY, OR PERFORMANCE OF CONSTRUCTION SWPPP BMPS PREPARED BY ME.



SCALE: NONE



PLASTIC COVERING DETAIL

PER 2016 KCSWDM FIGURE C.3.4.A SCALE: NONE

— CATCH BASIN OVERFLOW SOLID WALLS FILTER MEDIA FOR DEWATERING POROUS BOTTOM -

NOTES:

AT TOE WHEN NEEDED

THIS DETAIL IS ONLY SCHEMATIC. ANY INSERT IS ALLOWED THAT HAS A MIN. 0.5 CUBIC FEET OF STORAGE WITH THE MEANS TO DEWATER THE STORED SEDIMENT, PROVIDE AN OVERFLOW, AND CAN BE EASILY MAINTAINED.

INLET PROTECTION DETAIL PER 2016 KCSWDM FIGURE C.3.9.B

SCALE: NONE

TDEE INIVENITABLE

IKEE INVI	ENTORY:	
#1 - 28"	FIR (PSEUDOTSUGA MENZIESII)	REGULATED-YES
#2 - 39"	CEDAR (THUJA PLICATA)	REGULATED-YES
#3 - 26"	CEDAR (CEDRUS DEODORA)	REGULATED-YES
#103 - 18"	CYPRESS (CHAMAECYPARIS LAWSONIANA)	REGULATED-YES
#104 - 13"	CYPRESS (CHAMAECYPARIS LAWSONIANA)	REGULATED-YES
#105 - 24"	CEDAR (THUJA PLICATA)	REGULATED-YES
#106 - 17"	CEDAR (THUJA PLICATA)	REGULATED-YES

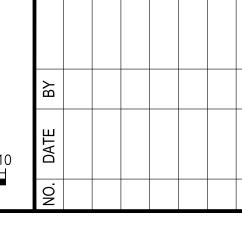
LEGEND

PROPERTY LINE ----- Adjacent property line RIGHT OF WAY LINE —— RIGHT OF WAY CENTERLINE



Call before you dig.

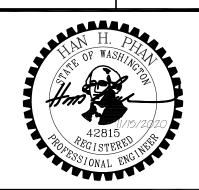
HORIZONTAL GRAPHIC SCALE 0 5 1 inch = 10 ft.



98040 MER

SHEETS

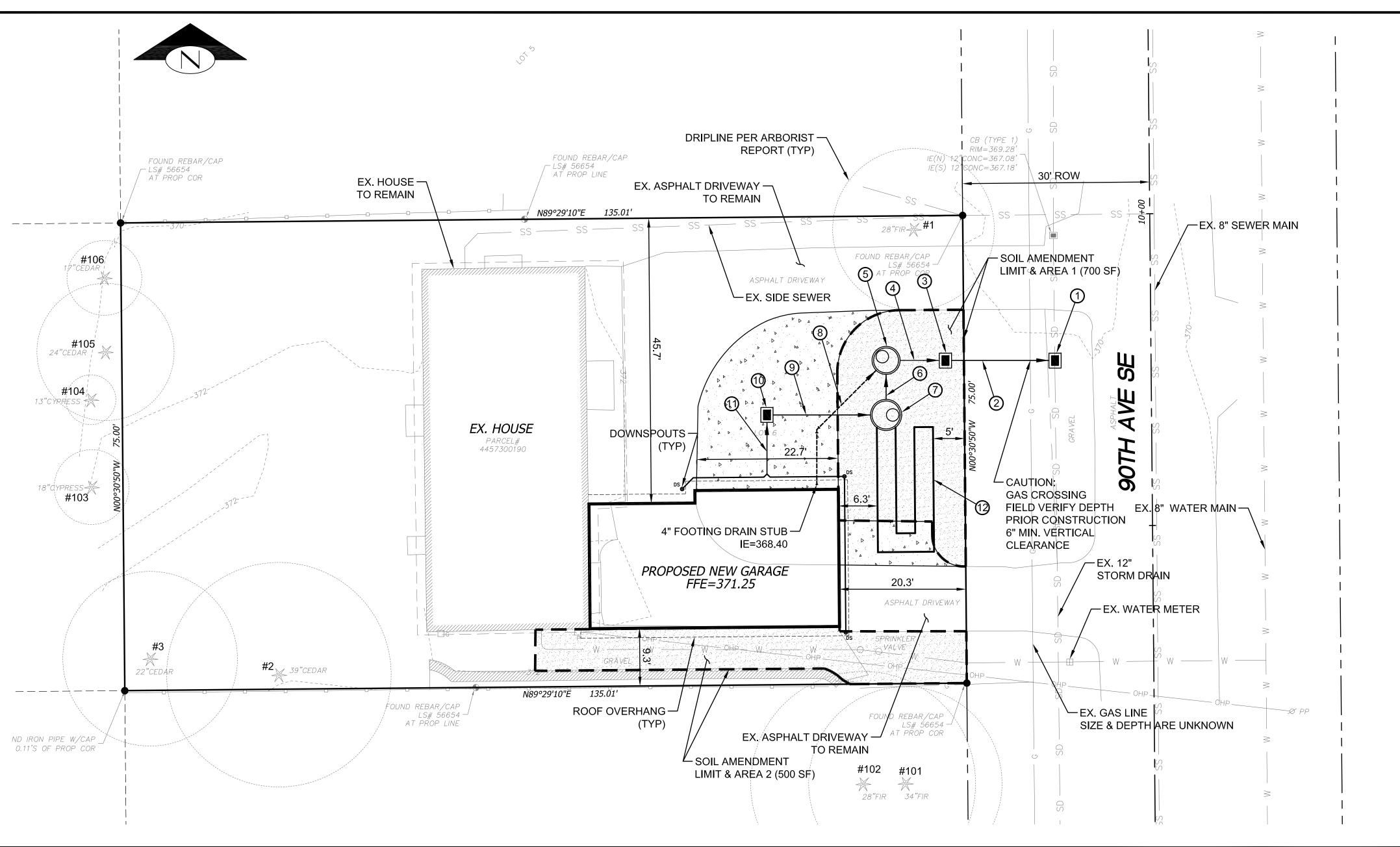
SHEET NO.

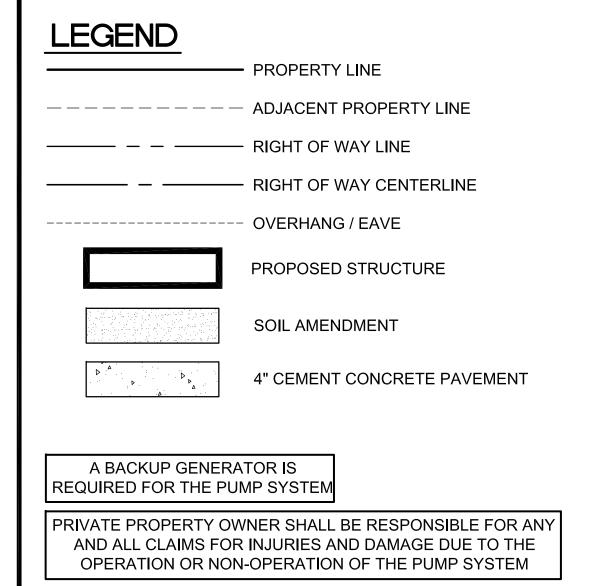


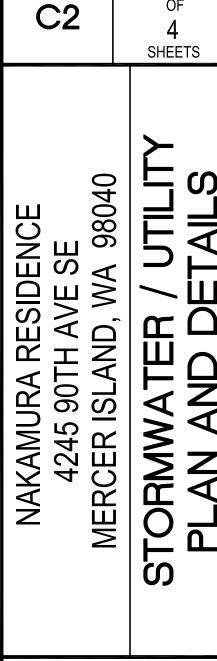


JE DATE	
5-2020	
7	Land Development and C
7	5130 South 166th Lar SeaTac, WA 98188
IAN	T (206) 229-6422
IV V	

DESIGNED BY: K. CHECKED BY: H. PROJ. MNGR: H.	K. TRAN K. TRAN H.H. PHAN H.H. PHAN
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REFERENCE SHEET NO.



5 evelopm C, WA

120295	11-15-2020	
NED BY:	K. TRAN	E120 O
V BY:	K. TRAN	SeaTac,
(ED BY:	H.H. PHAN	T (206)
MNGR:	H.H. PHAN	

JOB NO.	R20295	DESIGNED BY:	DRAWN BY:	CHECKED BY:	PROJ. MNGR:	
REVISION DESCRIPTION						

S)		DESIG	DRAW	CHEC	PROJ.	
2	_					
L	REVISION DESCRIPTION					
	ВУ					

CONSTRUCTION NOTES:

- 1 INSTALL CB #1-TYPE 1 WITH VANED GRATE RIM=370.11 EX. IE (N)=367.35 EX. IE (S)=367.45 IE (W)=367.94
- ② INSTALL 16 LF 6" DI SD @ 2.00%
- ③ INSTALL CB #3-TYPE 1 WITH SOLID LID RIM=370.50 IE (W)=368.76 IE (E)=368.26
- 4 INSTALL 6 LF 2" HPDE STORM DRAIN FORCE MAIN
- 5 INSTALL CB #3 TYPE 1 48" WITH SOLID LID & DUPLEX PUMP STATION PER DETAIL ON SHEET 4 RIM=370.85 IE (SW)=366.00 IE (S)=365.85 IE (E)=366.85 SUMP=362.85
- ⑥ INSTALL 4 LF 6" PVC SDR 35 @ 2.00%

- (7) INSTALL CB #4 TYPE 2 54" WITH FLOW CONTROL & SOLID LOCKING LID PER DETAIL ON SHEET C3 RIM=370.95 IE (W)=367.93 IE (S,N)=365.93
- 8 INSTALL 24 LF SOLID PVC SDR 35 FOOTING DRAIN COLLECTOR @ 10.00%
- 9 INSTALL 16 LF 6" PVC SDR 35 @ 2.00%
- 10 INSTALL CB #1-TYPE 40 WITH GRATE & OIL SEPARATOR (RISER TEE) RIM=371.00 IE (S)=368.35 IE (E)=368.25
- 11) INSTALL 60 LF 4" PVC SDR 35 ROOF DRAIN COLLECTOR @ 2.00% MIN.
- 12 INSTALL 3' DIA. X 43' LONG CMP DETENTION TANK PER DETAIL ON SHEET C3



HORIZONTAL GRAPHIC SCALE 10 5 0 5 10 1 inch = 10 ft.

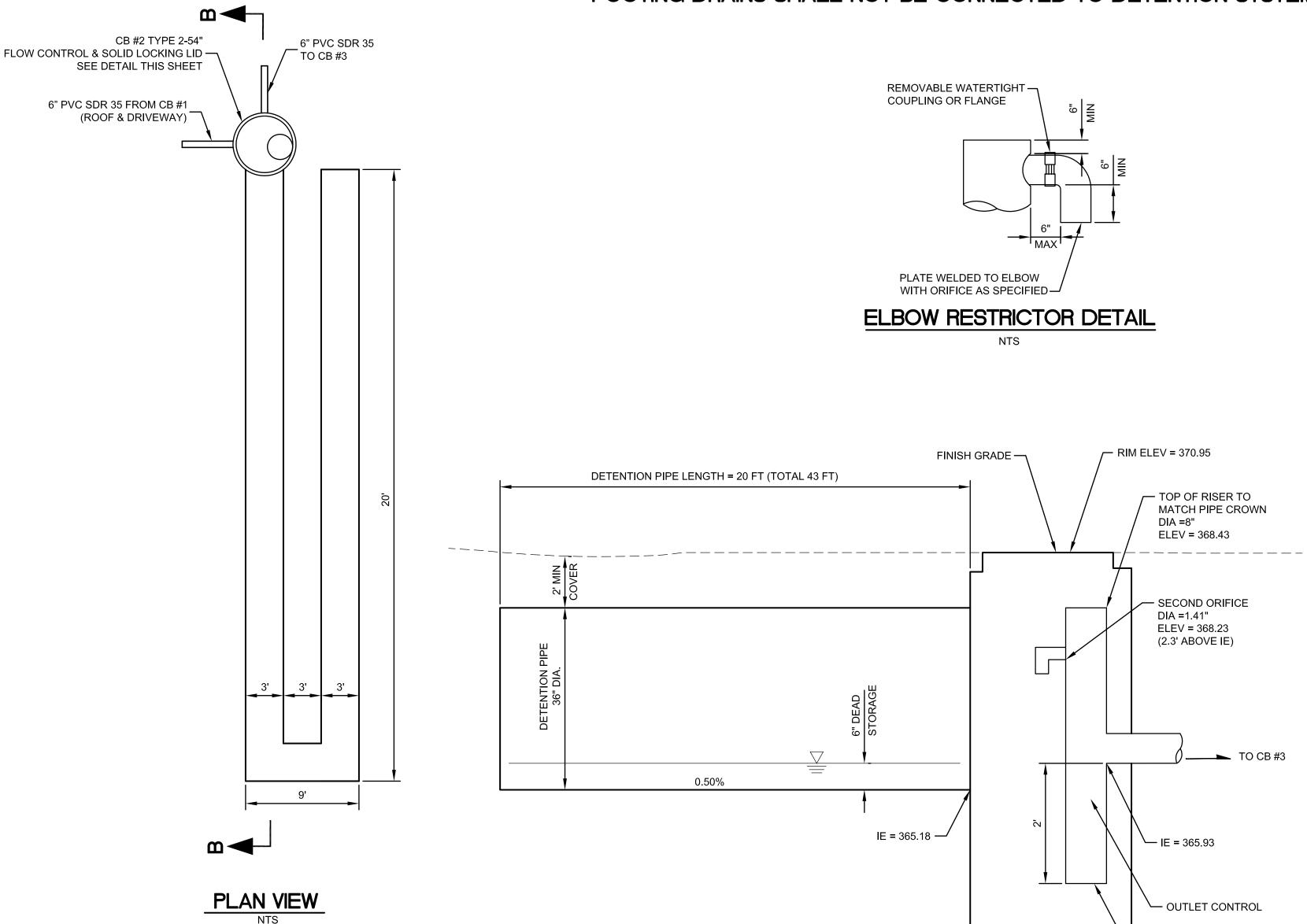
1,728 DISTURBED AREA REQUIR		FEET) X 0.0062 *** = REQUIRE	11 (CUBIC YARDS
SOIL AMEND	MENT *** 21	NCH LAYER OF COMPOST (FT/	12 INCH) X (CY/27 CF) = 0.0062
	PLANTING BEDS	TURF (LAWN) AREAS	
2"-4" MULCH			- GRASS: SEED OR SOD
3" OF COMPOST INCORPORATED INTO SOIL TO 8" DEPTH OR 8" OF IMPORT TOPSOIL			2" OF COMPOST INCORPORATED INTO SOII TO 8" DEPTH OR 8" OF IMPORT TOPSOIL
SUBSOIL SCARIFIED 4" BELOW COMPOST AMENDED LAYER (12" BELOW SOIL SURFACE)		2"	SUBSOIL SCARIFIED 4" BELOW COMPOST AMENDED LAYER (12" BELOW SOIL SURFACE)

STANDARD DETENTION SYSTEM NOTES:

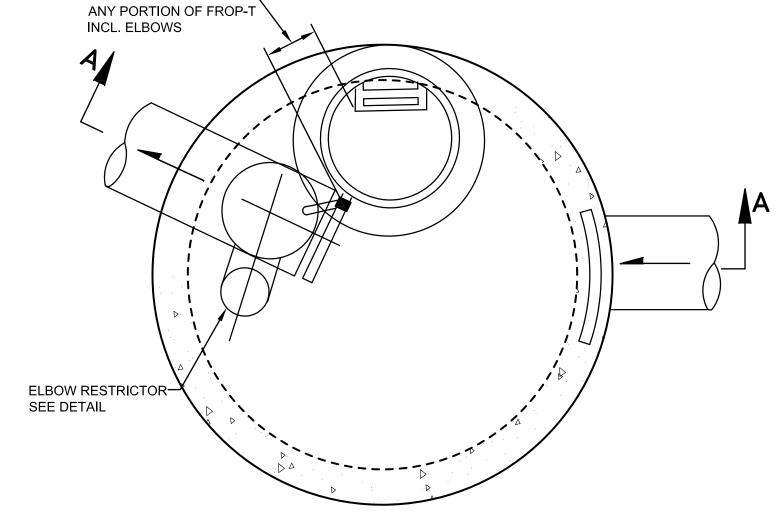
- 1. CALL DEVELOPMENT SERVICES (206-275-7605) 24 HOURS IN ADVANCE FOR A DETENTION SYSTEM INSPECTION BEFORE BACKFILLING AND FOR FINAL INSPECTIONS.
- 2. RESPONSIBILITY FOR OPERATION AND MAINTANANCE OF DRAINAGE SYSTEMS ON PRIVATE PROPERTY IS REPONSIBILITY OF THE PROPERTY OWNER. MATERIAL ACCUMULATED IN THE STORAGE PIPE MUST BE REMOVED FROM CATCH BASINS TO ALLOW PROPER OPERATION. THE OUTLET CONTROL ORIFICE MUST BE KEPT OPEN AT ALL TIMES.
- 3. PIPE MATERIAL, JOINT, AND PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH SECTION 7.04 AND 9.05 OF THE WSDOT STANDARD SPECIFICATION FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION, LATEST VERSION. SUCH MATERIALS INCLUDE THE FOLLOWING, LINED CORRUGATED POLYETHYLENE PIPE (LCPE), ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCH (MEETS AASHTO DESIGNATIONS M274 AND M36), CORRUGATED OR SPIRAL RIB ALUMINUM PIPE, OR REINFORCED CONCRETE PIPE. CORRUGATED STEEL PIPE IS NOT ALLOWED.

VNER:AKIHIRO NAKAMURA	ADDRESS: 4245 90TH AVE SE	PREPARED BY:	HAN PHAN, PE
RMIT #:	MERCER ISLAND, WA 98040	PHONE:	206-229-6422
		DATE:	11-15-2020
PERVIOUS SURFACE AREA (SF): 1,728	DETENTION 36 DETENTION PIPE LEN	ON IGTH (FT): 43	ORIFICE #1 DIA = 0.50 INCH, ELEV = 363.9
	PIPE MATERIAL: CMP		ORIFICE #2 DIA = 1.41 INCH, ELEV = 368.2

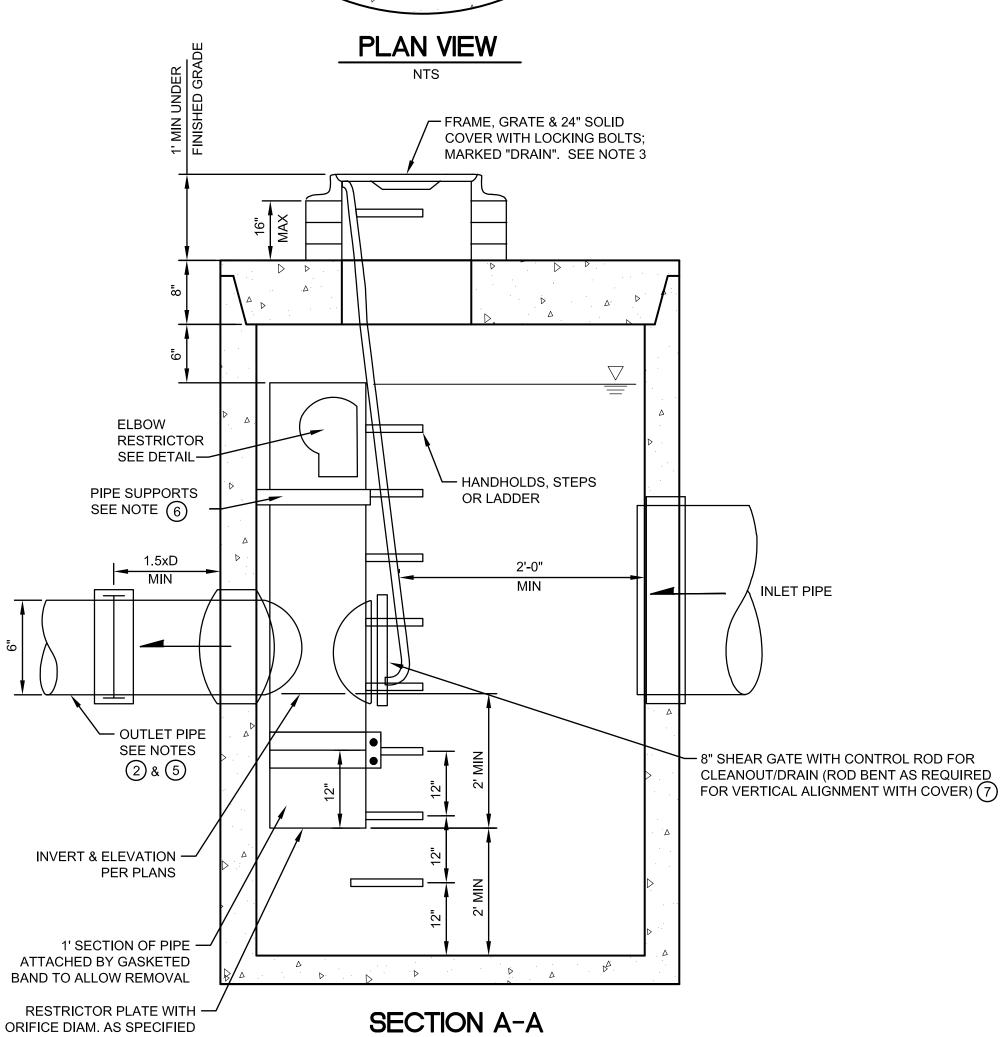
FOOTING DRAINS SHALL NOT BE CONNECTED TO DETENTION SYSTEM



PIPE DETENTION SYSTEM - PROFILE (SECTION B-B)



2' MIN. CLEARANCE TO -



RESTRICTOR CATCH BASIN NOTES:

- 1. USE A MINIMUM OF A 72" DIA. TYPE 2 CATCH BASIN WHEN CONNECTING PIPE MATERIAL IS CONCRETE OR LCPE. A 54" DIA. TYPE 2 CATCH BASIN MAY BE USED FOR OTHER CIRCULAR SINGLE WALL PIPE (SUCH AS CORRUGATED ALUMINUM PIPE).
- 2. OUTLET PIPE: MIN. 6".
- 3. METAL PARTS: CORROSION RESISTANT. NON-GALVANIZED PARTS PREFERRED. GALVANIZE PIP PARTS TO HAVE ASPHALT TREATMENT 1.
- 4. FRAME AND LADDER OR STEPS OFFSET SO:
- A. CLEANOUT GATE IS VISIBLE FROM TOP;
- B. CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE;
- C. FRAME IS CLEAR OF CURB.

5. IF METAL OUTLET PIPE CONNECTS TO CEMENT CONCRETE PIPE, OUTLET PIPE TO HAVE SMOOTH O.D. EQUAL TO CONCRETE PIPE I.D. LESS ¼ IN.

RESTRICTOR CATCH BASIN

(SEE DETAIL THIS SHEET)

— FIRST (LOWEST)

IE=363.93

ORIFICE DIA = 0.50"

- 6. PROVIDE AT LEAST ONE 3 X 0.090 GAUGE SUPPORT BRACKET ANCHORED TO CONCRETE WALL WITH $\frac{5}{8}$ IN. STANLESS STEEL EXPANSION BOLTS OR EMBEDDED SUPPORTS 2 IN. INTO CATCH BASIN WILL (MAXIMUM 3'-0" VERTICAL SPACING).
- 7. THE SHEAR GATE SHALL BE MADE ON ALUMINUM ALLOY IN ACCORDANCE WITH ASTM B 26M AND ASTM B 275, DESIGNATION ZG32A; OR CAST IRON IN ACCORDANCE WITH ASTM A 48, CLASS 30B. THE LIFT HANDLE SHALL BE MADE OF A SIMILAR METAL TO THE GATE (TO PREVENT GALVANIC CORROSION), IT MAY BE OF SOLID ROD OR HOLLOW TUBING, WITH ADJUSTABLE HOOK AS REQUIRED. A NEOPRENE RUBBER GASKET IS REQUIRED BETWEEN THE RISER MOUNTING FLANCE AND THE GATE FLANCE. INSTALL THE GATE SO THAT THE LEVEL-LINE MARK IS LEVEL WHEN THE GATE IS CLOSED. THE MATING SURFACES OF THE LID AND THE BODY SHALL BE MACHINED FOR PROPER FIT. ALL SHEAR GATE BOLTS SHALL BE STAINLESS STEEL.

98040 4245 MERCER **R2029**GNED BY:

REFERENCE SHEET NO.

SHEETS

NTS

RESTRICTOR CATCH BASIN DETAIL

New Impervious Area (sf) 1,001 to 2,000 sf 500 to 1,000 sf 3,001 to 4,000 sf 4,001 to 5,000 sf 2,001 to 3,000 sf Detention Pipe Size (in.) and Length (ft) Soil Type* 36" 48" 60" 48" 60" 36" 48" 36" 48" 60" 48" 60" 120 18 34 90 42 186 90 48 11 22 48 30 62 66 22 11 43 23 14 66 36 20 78 42 26 132 60 37

						Outlet Orific	e Size and D	esign Height 1	or Type B So	ils Only						
		Lowest	Distance from	Second	Lowest	Distance from	Second	Low est	Distance from	Second	Lowest	Distance from	Second	Lowest	Distance from	Second
١		Orifice	Outlet to	Orifice	Orifice	Outlet to	Orifice	Orifice	Outle t to	Orifice	Orifice	Outlet to	Orifice	Orifice	Outlet to	Orifice
	Detention Pipe Size (in)	Diameter (inches)ı	Second Orifice (feet)	Diameter (inches)												
	36	0.5	2.2	0.5	0.5	2.2	0.94	0.5	2.2	0.94	0.5	2.4	1.4	0.5	2.44	1.4
	48	0.5	3.3	0.94	0.5	3.2	0.9	0.5	3.1	0.9	0.5	2.8	0.8	0.5	2.7	0.75
L	60	0.5	4.15	0.47	0.5	4.3	0.94	0.5	4.2	0.94	0.5	3.8	0.94	0.5	4.14	0.9

					Outlet Or	ifice Size and	Design Heigh	nt for Type C 9	oils Only					
Lowest Orifice Diameter (inches)	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)ı	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches):	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)	Lowest Orifice Diameter (inches)1	Distance from Outlet to Second Orifice (feet)	Second Orifice Diameter (inches)
0.5	2	8.0	0.5	2.3	1.41	0.5	2.4	1.9	0.5	2.15	1.64	0.5	1.72	2.3
0.5	3.2	0.8	0.5 0.5	3.3 9	1.17 n.89	0.5 0.5	2.83 3.7	1.5	0.5 0.5	2.9 3 a	1.3	0.5 0.5	2.43	1.6
Οİ	Orifice iameter nches)1	Orifice from liameter Outlet to second Orifice (feet) 0.5 2 0.5 3.2	Orifice from Orifice iameter Outlet to Diameter nches): Second (inches) Orifice (feet) 0.5 2 0.8 0.5 3.2 0.8	Orifice from Orifice Orifice iameter Outlet to Diameter Diameter nches): Second (inches) (inches): Orifice (feet) 0.5 2 0.8 0.5 0.5 3.2 0.8 0.5	Orifice from Orifice Orifice from iameter Outlet to Diameter Diameter Outlet to nches)1 Second (inches)1 Second Orifice Orifice (feet) 0.5 2 0.8 0.5 2.3 0.5 3.2 0.8 0.5 3.3	Orifice from Orifice Orifice from Orifice Diameter Outlet to Diameter (inches) Orifice (feet) O.5 2 0.8 0.5 2.3 1.41 O.5 3.2 0.8 0.5 3.3 1.17	Orifice from Orifice Orifice from Orifice Diameter Outlet to Diameter Outlet to Second (inches) Orifice (inches) Orifice (feet) O.8 O.5 O.5 O.8 O.5	Orifice from Orifice Diameter Outlet to Diameter (inches) Second Orifice (feet) Ones Ones Ones Ones Ones Ones Ones Ones	Orifice from Orifice Diameter Outlet to Diameter Outlet to Orifice Diameter Outlet to Diameter Outlet to Orifice Orifice Diameter Outlet to Orifice Outlet to Orifice Outlet to Orifice Orific	Orifice from Orifice Diameter Outlet to Diameter (inches) Orifice (feet) Orifice (feet) Orifice (feet) Orifice (from Orifice (inches)) Orifice (feet) Orific	Orifice from Orifice Diameter Outlet to Second Orifice (feet) Orif	Orifice from Orifice Orifice Diameter Outlet to Diameter Outlet to Orifice (inches) Orifice	Orifice from Orifice Orifice from Orifice Or	Orifice from Orifice Orifice

NEW IMPERVIOUS CALC.

ROOF AREA (INCLUDING OVERHANG): 1,026 SF DRIVEWAY: 702 SF

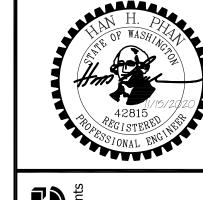
DUPLEX PARALLEL SUBMERSIBLE

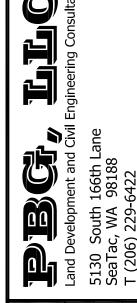
GRINDER PUMPS

TOTAL: 1,728 SF

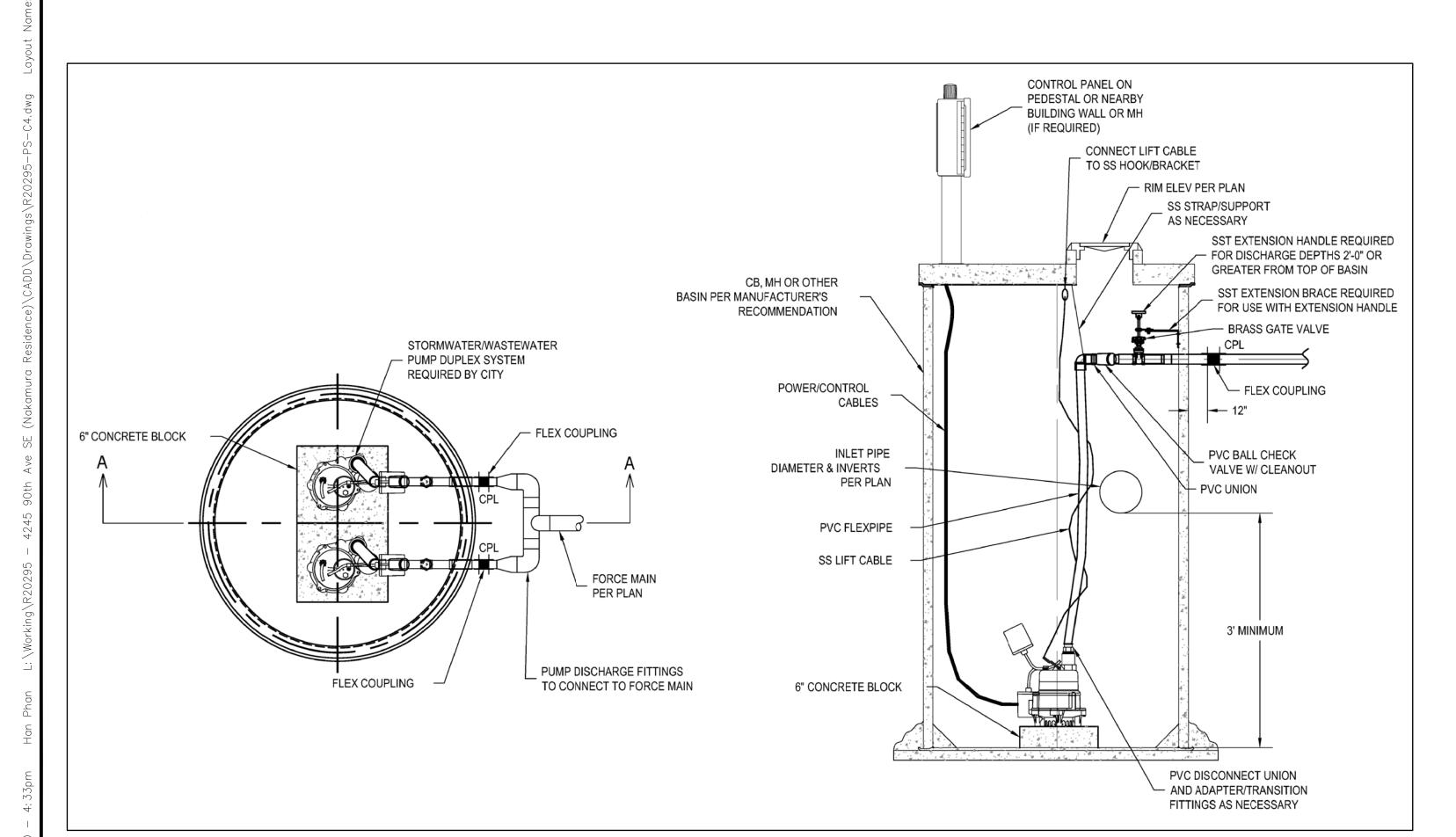
C4	OF 4 SHEETS
NAKAMURA RESIDENCE 4245 90TH AVE SE MFRCFR ISI AND WA 98040	DETAILS

REFERENCE SHEET NO.





ON BOC	R20295	DESIGNED BY:	DRAWN BY:	CHECKED BY:	
REVISION DESCRIPTION					



DUPLEX PUMP STATION

SCALE: NONE

DESIGN CALCULATIONS	FROM RATIONAL METHOD CALCULATION: PEAK INFLOWS: 25-YR = 13 GPM 100-YR = 15 GPM
DESIGN FLOW AND TDH	1 PUMP: 15 GPM @ 12' TDH 2 PUMP: 15 GPM @ 12' TDH
PUMP ELECTRICAL	1/3 HP, 1 PHASE, 115 V, GOULD WS_BHF SERIES (MODEL WS0311BHF OR EQ.)
PUMP CONTROLS	ALTERNATE PUMP STARTS, LOW AND HIGH LEVEL ALARM LIGHT
PUMP MOUNTING AND DISCHARGE	INCREASER TO 2" DISCHARGE WITH 2" UNION, CHECK VALVE, AND GATE VALVE FROM EACH PUMP
DISCHARGE MANIFOLD	2" x 2" DISCHARGE TO FORCE MAIN
FORCE MAIN & FITTINGS	2"
	FLOAT SPECIFICATIONS
REDUNDANT OFF AND LOW LEVEL ALARM	PER MANUFACTURE'S REQUIREMENTS
OFF	PER MANUFACTURE'S REQUIREMENTS
ON (1ST PUMP)	1.5' ABOVE OFF
ON (2ND PUMP)	2.5' ABOVE OFF
HIGH LEVEL ALARM	0.5' ABOVE 2ND PUMP ON
MIN. HEIGHT FROM HIGH LEVEL ALARM TO LOWEST INLET	0.5'

NOTES:

GENERAL DESCRIPTION

- 1. THESE SPECIFICATIONS ARE SCHEMATIC IN NATURE AND SHALL BE CONFIRMED BY SUPPLIER AND CONTRACTOR.
- 2. PUMP FLOATS/CONTROLS SHALL BE FIELD TESTED AND ADJUSTED TO ACHIEVE OPTIMUM PUMP CYCLE TIMES PER MANUFACTURE'S RECOMMENDATIONS.
- 3. EXPLOSION PROOF PUMPS, CONTROLS, AND ELECTRICAL COMPONENTS SHALL BE INSTALLED IF REQUIRED BY CODE.

STORM DRAIN DUPLEX PUMP STATION SPECIFICATIONS