SEISMIC RETROFIT SCHEMATICS FOR AREAS FALLING BELOW COLLAPSE PREVENTION FOR THE BEAVERTON SCHOOL DISTRICT

VOLUME 5

KPFF PROJECT NO. 10021900918

MARCH 31, 2020

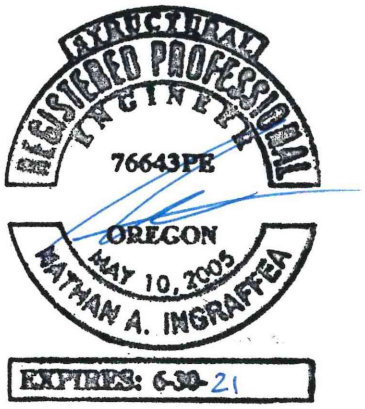

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TABLE OF CONTENTS

DESCRIPTION | PAGE NO.

EXECUTIVE SUMMARY 1

FACILITY RESULTS SUMMARY 2-6

TABLE 1: FACILITY CATEGORIZATION 7

TABLE 2: MOST DEFICIENT ZONES 8

TABLE 3: COST ESTIMATE SUMMARY 9

RETROFIT SCHEMATICS ..... 7-1 THRU MW-4

FACILITY COST ESTIMATES ..... E-1 THRU E-69

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Executive Summary

EXECUTIVE SUMMARY

Previous Work

KPFF previously created a report, Seismic Assessments for the Beaverton School District (BSD), which contained a summary of the expected seismic performance of each facility in the district. To create this report, KPFF visited each facility and reviewed available drawings in order to make high level assessments. The report included Risk Zone Plans which graphically illustrated the expected seismic performance of each portion of each facility. The report was intended to be used as a tool to help BSD prioritize seismic improvements throughout the district.

Current Scope

The purpose of this project is to provide schematic level retrofit schemes for the portions of each facility that were not expected to meet the Collapse Prevention Performance Objective of ASCE 41 as listed in the previous report and as illustrated on the Risk Zone Plans. These schemes were used by a qualified cost estimator to generate pricing information which can be used for determining the district's funding needs for an upcoming Bond initiative.

Process

Any facility with at least one portion that was not expected to meet the Collapse Prevention Performance Objective was selected for review. The Tier 1 procedures from ASCE 41 were used to further evaluate each building portion that was not expected to meet the Collapse Prevention Performance Objective. Schematic level pricing documents were created to show the level of work that would be required to meet the Collapse Prevention objective. Some of these improvements will also meet the Life Safety Performance Objective with little or no cost increase beyond what is required to meet the Collapse Prevention Performance Objective. Note that the retrofit schemes for Cedar Park, Highland Park, and Whitford have been developed to the Immediate Occupancy Performance Objective. Cedar Mill and Beaverton HS retrofit schemes have been developed to the Life Safety Performance Objective.

Modular School Conditions

Modular wood-framed buildings exist throughout the Beaverton School District. In the previous assessments, these buildings were typically classified as meeting the Collapse Prevention Performance Objective, but not meeting the Life Safety Performance Objective. In our review of the International School, we performed a more detailed review of the modular building and found significant issues for seismic performance. Retrofit information has been included for the modular portion of the International School that would bring that building up to the Life Safety Performance Objective. Unit pricing obtained from the International School can be used to get a reasonable estimate of the cost to upgrade similar buildings throughout the district to the Life Safety Performance Objective.

Current Projects

As of this report three facilities that show zones not meeting the Collapse Prevention Performance Objective in the April 2020 report are undergoing seismic retrofit projects: Beaver Acres Elementary School, Cooper Mountain Elementary School, and Aloha High School. All three of these facilities went through the State of Oregon Seismic Rehabilitation Grant Program (SRGP) in 2017/2018 and were

approved by the state and given funding. The Beaver Acres and Cooper Mountain projects are still in the design phase, while Aloha high school is currently undergoing construction with planned completion in August 2020.

FACILITY RESULTS SUMMARY

The deficiencies and retrofit scheme(s) for each facility are summarized in this section. Reference the retrofit drawings for more details.

6 – Cedar Mill

Out-of-plane anchorage and hold downs are either non-compliant or missing in various areas of the facility. Additional anchors and hold downs will be required at existing shear walls. Foundations in the 1955 addition are not tied together and require new positive connections. The north-south concrete walls at the first level of the 1959 addition are not sufficiently braced out-of-plane. Existing sheathing on wood stud walls is unclear from the existing drawings and could not be verified in field. Sheathing will likely need to be replaced with new plywood. A detailed analysis of the existing bowstring trusses is recommended, due to the presence of single-bolt joint connections and visible cracking.

7 – Chehalem

The main entrance area has overhead glazing that is single pane annealed glass. This is a life safety risk due to falling glass during an earthquake. Either add seismic safety film (example: https://www.3m.com/3M/en_US/building-window-solutions-us/resources/window-film-for-schools/) or replace windows with insulated safety glass. Note that Chehalem and Terra Linda Elementary Schools each have this same condition.

9 – Elmonica

The breezeway between the original 1980 building and the 1988 addition has overhead glazing that is single pane annealed glass. This is a life safety risk due to falling glass during an earthquake. Either add seismic safety film (example: https://www.3m.com/3M/en_US/building-window-solutions-us/resources/window-film-for-schools/) or replace windows with insulated safety glass.

12 – Fir Grove

The south wing of the facility (1954 addition) does not have a complete load path from the roof diaphragm to the wood shear walls in the north-south direction. Blocking and shear clips are required at the top of these walls.

13 – Greenway

The breezeway between the original 1979 building and the 1985 addition has overhead glazing that is single pane annealed glass. This is a life safety risk due to falling glass during an earthquake. Either add seismic safety film (example: https://www.3m.com/3M/en_US/building-window-solutions-us/resources/window-film-for-schools/) or replace windows with insulated safety glass.

18 – McKay

The gyp-sheathed interior walls at the original building and the 1950 addition are not adequate for shear loads. The gypsum sheathing should be removed and replaced with plywood sheathing. The exterior walls of the original building and the 1950 addition do not have a complete load path from the base of the shear walls to foundation elements. Steel angles for shear transfer are required at the base of the walls to the slab-on-grade. Significant deterioration of wood posts was observed at the covered play area. We recommend either replacing existing wood posts with steel columns and new foundation elements or demolishing the existing covered play and replacing it with a steel framed structure. The 1950 addition currently has glass blocks walls on the north and east sides, which can be a falling hazard in a seismic event. The block walls should be removed.

20 – Montclair

The main entrance area has overhead glazing that is single pane annealed glass. This is a life safety risk due to falling glass during an earthquake. Either add seismic safety film (example: https://www.3m.com/3M/en_US/building-window-solutions-us/resources/window-film-for-schools/) or replace windows with insulated safety glass. Note that Chehalem and Terra Linda Elementary Schools each have this same condition.

22 – Oak Hills

The breezeway in the original 1966 building has overhead glazing that is single pane annealed glass. This is a life safety risk due to falling glass during an earthquake. Either add seismic safety film (example: https://www.3m.com/3M/en_US/building-window-solutions-us/resources/window-film-for-schools/) or replace windows with insulated safety glass.

23 – Raleigh Hills

The gyp-sheathed exterior walls at the 1927 wing and the gymnasium are not adequate for shear loads. The gypsum sheathing should be removed and replaced with plywood sheathing. The exterior walls of the classroom wings do not have a complete load path from the base of the concrete stem walls to foundation elements. Steel angles for shear transfer are required at the base of the walls to the slab-on-grade. A detailed analysis of the existing wood roof trusses at the gymnasium is recommended, due to the presence of single-bolt joint connections and visible splitting.

24 – Raleigh Park

The corridor shear walls do not have a complete load path from the base of wall to foundation elements. Steel angles for shear transfer are required at the base of the masonry walls to the slab-on-grade. Some masonry walls are not braced for out-of-plane forces. Coil straps with wall anchors or glulam beam framing are required for wall bracing.

25 – Ridgewood

The exterior walls of the classroom wings do not have a complete load path from the base of the brick walls to foundation elements. Steel angles for shear transfer are required at the base of the walls to the slab-on-grade. The covered play area does not have an adequate lateral load system. New plywood sheathing is required on top of the existing wood decking to strengthen the roof diaphragm. Steel braced

frames are required along the exterior line. The unreinforced brick chimney located on the southeast corner of the high roof is a potential falling hazard. It should be either reduced in height or removed completely.

26 – Rock Creek

The cantilevered steel columns at the covered play area are not adequate for seismic loads. New braced frames and footings are required. The 1988 addition to the covered play requires tension ties to the original diaphragm to transfer lateral forces.

29 – Sexton Mountain

The gymnasium and the high roof over the library do not have a complete load path from the roof diaphragm to the steel moment frames. Blocking and additional fasteners are required for shear transfer. The shear walls in the gymnasium are not continuous from the roof diaphragm to the foundation. The lower wall portions will need to re-framed to meet shear wall requirements. Some of the masonry walls around the classroom wing are not braced for out-of-plane forces. Coil straps with wall anchors are required for wall bracing.

31 – Terra Linda

The main entrance area has overhead glazing that is single pane annealed glass. This is a life safety risk due to falling glass during an earthquake. Either add seismic safety film (example: https://www.3m.com/3M/en_US/building-window-solutions-us/resources/window-film-for-schools/) or replace windows with insulated safety glass. Note that Terra Linda and Chehalem Elementary Schools each have this same condition.

33 – West Tualatin View

The 1958 gymnasium was constructed with a perimeter reinforced concrete frame with single-wythe brick infill walls. The infill walls have only light horizontal reinforcing and no vertical reinforcing. The infill walls should be anchored back to a new interior stud wall to prevent collapse during a seismic event.

35 – Cedar Park

The west wing of the facility (Including the original 1965 cafeteria, and the 1970 addition) does not have a complete load path from the roof diaphragm to the concrete shear walls in both the north-south and east-west directions. Blocking and shear clips are required at the top of these walls. Strengthening of the existing plywood sheathing will be required in the cafeteria and music hall. The shear walls in the gymnasium are not continuous from the roof diaphragm to the foundation. The lower wall portions will need to have additional connections attaching the pre-cast wall to the foundations. The interior unreinforced masonry walls in the locker room wing are not braced for out-of-plane forces and will need to be replaced with metal stud walls or stud wall bracing will need to be provided.

The mezzanine in the 1970 addition is inadequate to resist lateral forces and will need to be strengthened with a plywood overlay. The tectum roofing over the gymnasium and the 1970 addition is inadequate to transfer lateral forces. Plywood overlay and blocking will be required. The covered play area does not provide an adequate load path from the roof diaphragm to the foundation. Steel strapping and new lateral

elements are required. The covered walkway at the entrance of the building will require strengthening for transfer of lateral loads from the roof diaphragm to foundation elements.

38 – Highland Park

The east wing of the facility (Including the original 1964 gymnasium and cafeteria, and the 1970 addition) does not have a complete load path from the roof diaphragm to the concrete shear walls in both the north-south and east-west directions. Blocking and shear clips are required at the top of these walls. Strengthening of the existing plywood sheathing will be required in the cafeteria and music hall. The shear walls in the gymnasium are not continuous from the roof diaphragm to the foundation. The lower wall portions will need to have additional connections attaching the pre-cast wall to the foundations. The interior unreinforced masonry walls in the locker room wing are not braced for out-of-plane forces and will need to be replaced with metal stud walls or stud wall bracing will need to be provided.

The mezzanine in the 1970 addition is inadequate to resist lateral forces and will need to be strengthened with a new plywood overlay. The tectum roofing over the gymnasium and the 1970 addition is inadequate to transfer lateral forces. Plywood overlay and blocking will be required. The covered play area does not provide an adequate load path from the roof diaphragm to the foundation. Steel strapping and new lateral elements are required. The covered walkway at the entrance of the building will require strengthening for transfer of lateral loads from the roof diaphragm to foundation elements.

39 – Meadow Park

The footings at the main entry canopies are not adequate to resist seismic overturning loads. The footings can be retrofitted by enlarging them. Alternatively, the canopies can be removed and replaced with a new design meeting current code.

40 – Mountain View

The tectum panel roofing at the gymnasium is not adequate for shear loads. New plywood sheathing is required. Exterior concrete tilt up walls do not have a complete load path from the wall to the footing and floor system. New steel angles are required for shear transfer between the wall and slab-on-grade.

43 – Whitford

The south wing of the facility (Including the original 1962 gymnasium and cafeteria, and the 1970 addition) does not have a complete load path from the roof diaphragm to the concrete shear walls in both the north-south and east-west directions. Blocking and shear clips are required at the top of these walls. Strengthening of the existing plywood sheathing will be required in the cafeteria and music hall. The shear walls in the gymnasium are not continuous from the roof diaphragm to the foundation. The lower wall portions will need to have additional connections attaching the pre-cast wall to the foundations. The interior unreinforced masonry walls in the locker room wing are not braced for out-of-plane forces and will need to be replaced with metal stud walls or stud wall bracing will need to be provided.

The mezzanine in the 1970 addition is inadequate to resist lateral forces and will need to be strengthened with a new plywood overlay. The tectum roofing over the gymnasium and the 1970 addition are inadequate to transfer lateral forces. Plywood overlay and blocking will be required. The covered play

area does not provide an adequate load path from the roof diaphragm to the foundation. Steel strapping and new lateral elements are required. The covered walkway at the entrance of the building will require strengthening for transfer of lateral loads from the roof diaphragm to foundation elements.

45 – Beaverton High School

The overall load path for this facility is not well defined and lacks adequate lateral resistance through URM walls and lightly reinforced concrete spandrels and columns. Out-of-plane bracing is inadequate for the URM walls. Wall anchorage is required for concrete and masonry walls to wood flooring. The 1986 addition has no dedicated lateral system and requires new lateral support. Concrete tilt-up panels at the 2008 addition do not have anchors to the foundation and require additional connection to complete the load path. A detailed analysis of the existing bowstring trusses is recommended, due to the presence of single-bolt joint connections and visible cracking.

48 – Sunset High School

The auditorium wing does not have a complete load path from the concrete shear walls to foundation elements. Steel angles for shear transfer are required at the base of the concrete walls to the slab-on-grade.

51 – Capitol Center

The west side of the cafeteria building does not have enough shear walls. Additional shear walls or braced frames are required. Both options will require new footings. The concrete tilt up walls at the cafeteria do not have a complete load path from the base of wall to foundation elements. New steel angles will be required to transfer shear from the wall to the slab-on-grade.

52 – International School

The wood shear walls along corridors do not have a complete load path from the roof diaphragm to foundation elements. Plywood sheathing above the hallway ceiling, blocking, and shear clips are required. The classroom demising walls are not adequate to act as shear walls, and do not have foundation elements below. These walls will need to be removed in order to build foundation elements below, and then re-built to meet shear wall requirements. The gymnasium is built on a crawl space that is not braced. Perpendicular stem walls under the ground floor are required. The roof sheathing at the classroom wing is not adequate for seismic forces. A layer of plywood sheathing on top of the existing shiplap sheathing is required. In the cafeteria wing, the masonry end walls are not braced for out-of-plane forces. Steel angles and fasteners to the metal decking are required.

Facility Categorization

Table 1 groups all 24 facilities containing zones that do not meet the Collapse Prevention Performance Objective into one of three categories: minimal, moderate, and substantial. These categories are intended to describe the relative scope of work required to achieve the Collapse Prevention Performance Objective, with "Minimal" representing the least amount of work and "Substantial" representing the most amount of work compared to other facilities on the list. Refer to facility descriptions and markups to further understand the required retrofits.

TABLE 1: Facility Categorization

Minimal		Moderate		Substantial	
7	Chehalem	12	Fir Grove	6	Cedar Mill
9	Elmonica	24	Raleigh Park	18	McKay
13	Greenway	25	Ridgewood	23	Raleigh Hills
20	Montclair	26	Rock Creek	29	Sexton Mountain
22	Oak Hills	33	West Tualatin View	35	Cedar Park
31	Terra Linda	40	Mountain View	38	Highland Park
39	Meadow Park			43	Whitford
48	Sunset			45	Beaverton HS
				51	Capitol Center
				52	International School

Most Deficient Zones in the District

Table 2 lists the facility zones with severe structural deficiencies, ranked in order of severity with the most severe zone at the top. This list is intended to be used as a tool for prioritizing future seismic upgrades. Please note that this table lists only the 15 worst zones throughout the district, and that facilities listed here may have deficiencies in other zones as well.

TABLE 2: Most Deficient Zones

	Zone Rank	Facility #	Facility Name	Zone	Description
Most Deficient Zones	**1 (Worst)**	45	Beaverton HS	Pre-1930s and 1946 Classrooms	URM walls with no out-of-plane bracing or proper load path.
	2	23	Raleigh Hills	Original Structure	Gyp sheathing not adequate for shear loads; Exterior walls have no load path to foundations.
	3	43	Whitford	Southwest Wing	There is no lateral load path on this wing of the structure including the gymnasium, cafeteria, music hall, and covered play area.
	4	38	Highland Park	East Wing	There is no lateral load path on this wing of the structure including the gymnasium, cafeteria, music hall, and covered play area.
	5	35	Cedar Park	West Wing	There is no lateral load path on this wing of the structure including the gymnasium, cafeteria, music hall, and covered play area.
	6	40	Mountain View	Gymnasium	Existing roof diaphragm not adequate for lateral loads; Exterior walls have no load path to foundations.
	7	18	McKay	Original Structure/1950 Addition	Gyp sheathing not adequate for shear loads; Exterior walls have no load path to foundations. Glass Block walls are Hazard.
	8	23	Raleigh Hills	Original Gymnasium	Gyp sheathing not adequate for shear loads; Wood roof trusses require detailed analysis.
	9	33	West Tualatin View	Gymnasium	Unreinforced singly-wythe brick infill walls.
	10	6	Cedar Mill	1959 and 1971 Additions	Concrete and CMU walls not braced for out-of-plane forces.
	11	52	International School	Classroom Wings	There is no lateral load path in the short direction of the classrooms.
	12	29	Sexton Mountain	Gymnasium	There is no lateral load path in the long direction of the gym.
	13	45	Beaverton HS	Various Corridors	Various corridors have unbraced hollow clay partition walls.
	14	51	Capitol Center	Cafeteria	West side of structure requires new lateral elements; Tilt-up walls have no load path to foundations.
	15	18	McKay	Covered Play Area	Deterioration of Wood Posts

COST ESTIMATES

Once each facility was reviewed and a retrofit scheme created, KPFF instituted the help of Plan B Consultancy to perform a cost estimate for each facility. Each estimate takes into account the existing conditions of the facility and the full amount of work needed to complete the retrofit from both a structural and non-structural perspective. The estimates assume a construction start of 2021. Also included is a +/- 50% difference in the total construction cost to show both a potential low and high side for each project. The values for each facility can be seen in the summary table below as well as the individual break downs on pages E-1 to E-69.

Note that cost estimates based on upgrade schemes for Cedar Mill Elementary School, West TV Elementary School and Beaverton HS have recently been completed outside of the scope of this report.

TABLE 3: Cost Estimate Summary Table

Facility #	Facility Name	-50%	Estimated Probable Cost	+50%
7	Chehalem	$15,268	**$30,535**	$45,803
9	Elmonica	$17,812	**$35,624**	$53,436
12	Fir Grove	$403,228	**$806,456**	$1,209,684
13	Greenway	$7,634	**$15,267**	$22,901
18	McKay	$546,233	**$1,092,465**	$1,638,698
20	Montclair	$19,084	**$38,168**	$57,252
22	Oak Hills	$10,178	**$20,356**	$30,534
23	Raleigh Hills	$350,302	**$700,603**	$1,050,905
24	Raleigh Park	$259,800	**$519,599**	$779,399
25	Ridgewood	$462,288	**$924,575**	$1,386,863
26	Rock Creek	$50,552	**$101,104**	$151,656
29	Sexton Mountain	$159,714	**$319,427**	$479,141
31	Terra Linda	$13,995	**$27,990**	$41,985
35	Cedar Park	$1,662,359	**$3,324,717**	$4,987,076
38	Highland Park	$1,738,687	**$3,477,374**	$5,216,061
39	Meadow Park v1	$100,078	**$200,155**	$300,233
39	Meadow Park v2	$76,329	**$152,657**	$228,986
40	Mountain View	$815,787	**$1,631,573**	$2,447,360
43	Whitford	$1,738,687	**$3,477,374**	$5,216,061
48	Sunset	$26,294	**$52,588**	$78,882
51	Capitol Center	$105,684	**$211,368**	$317,052
52	International School	$2,151,211	**$4,302,421**	$6,453,632
	TOTAL =	$10,731,198	**$21,462,396**	$32,193,594

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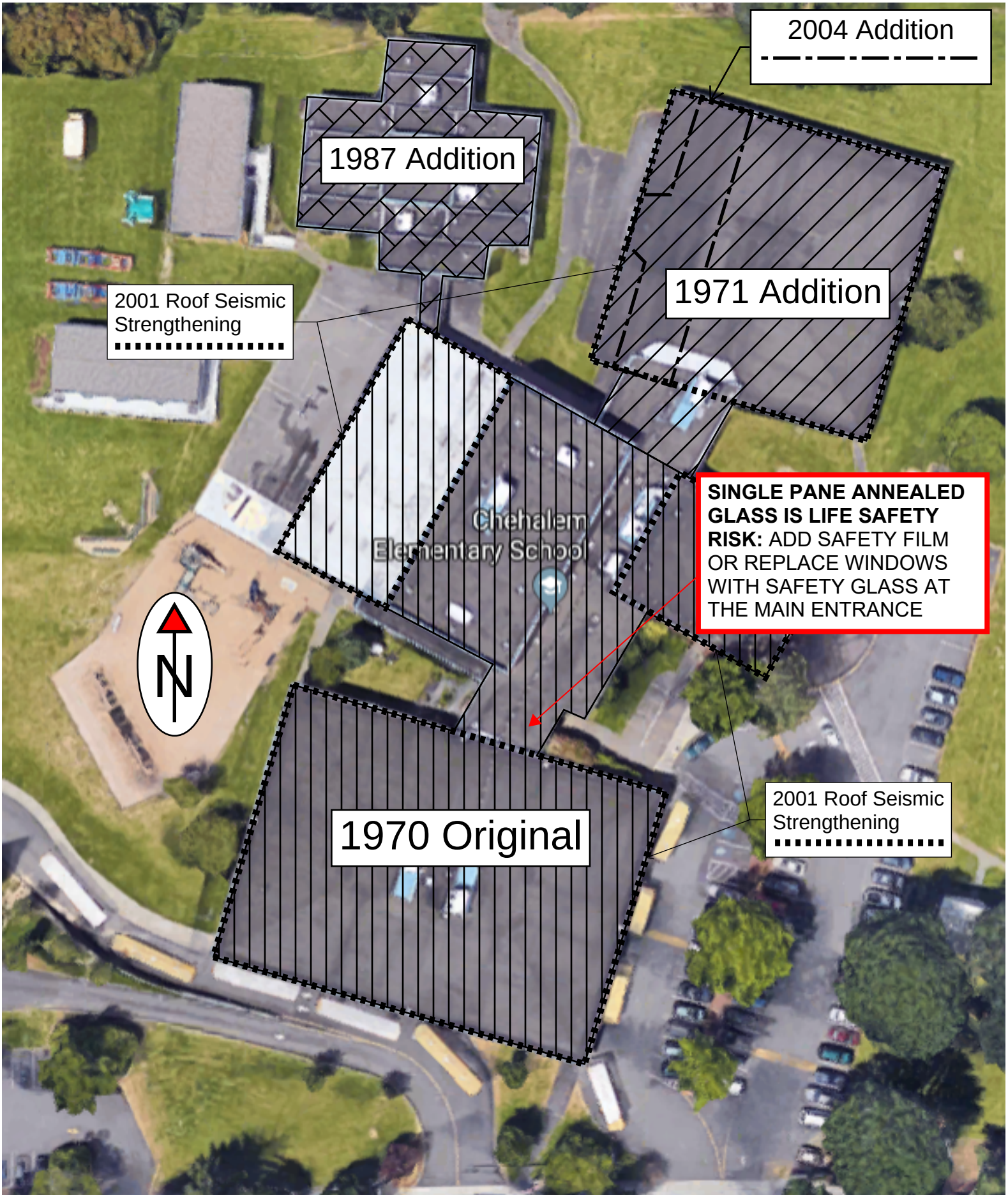
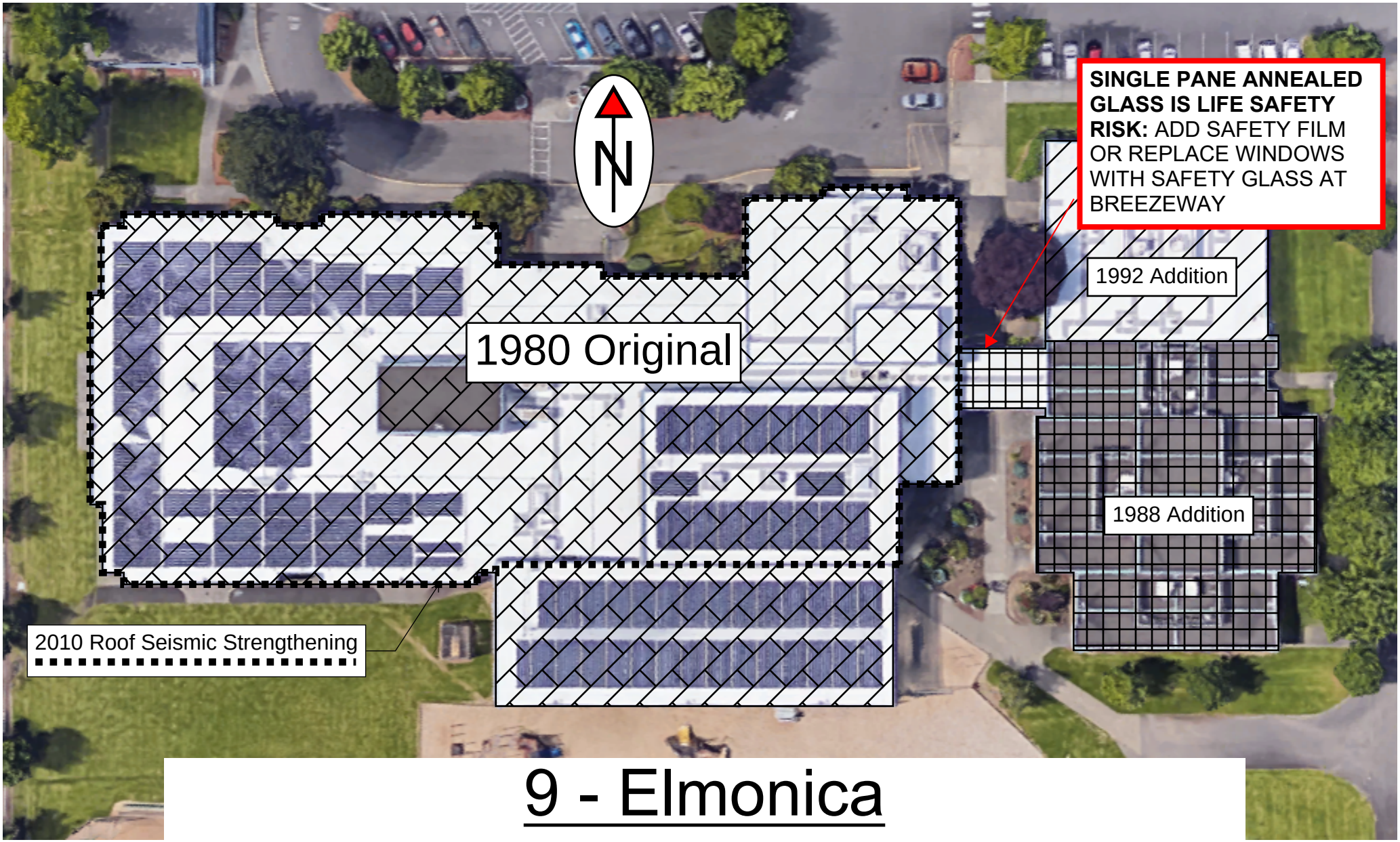
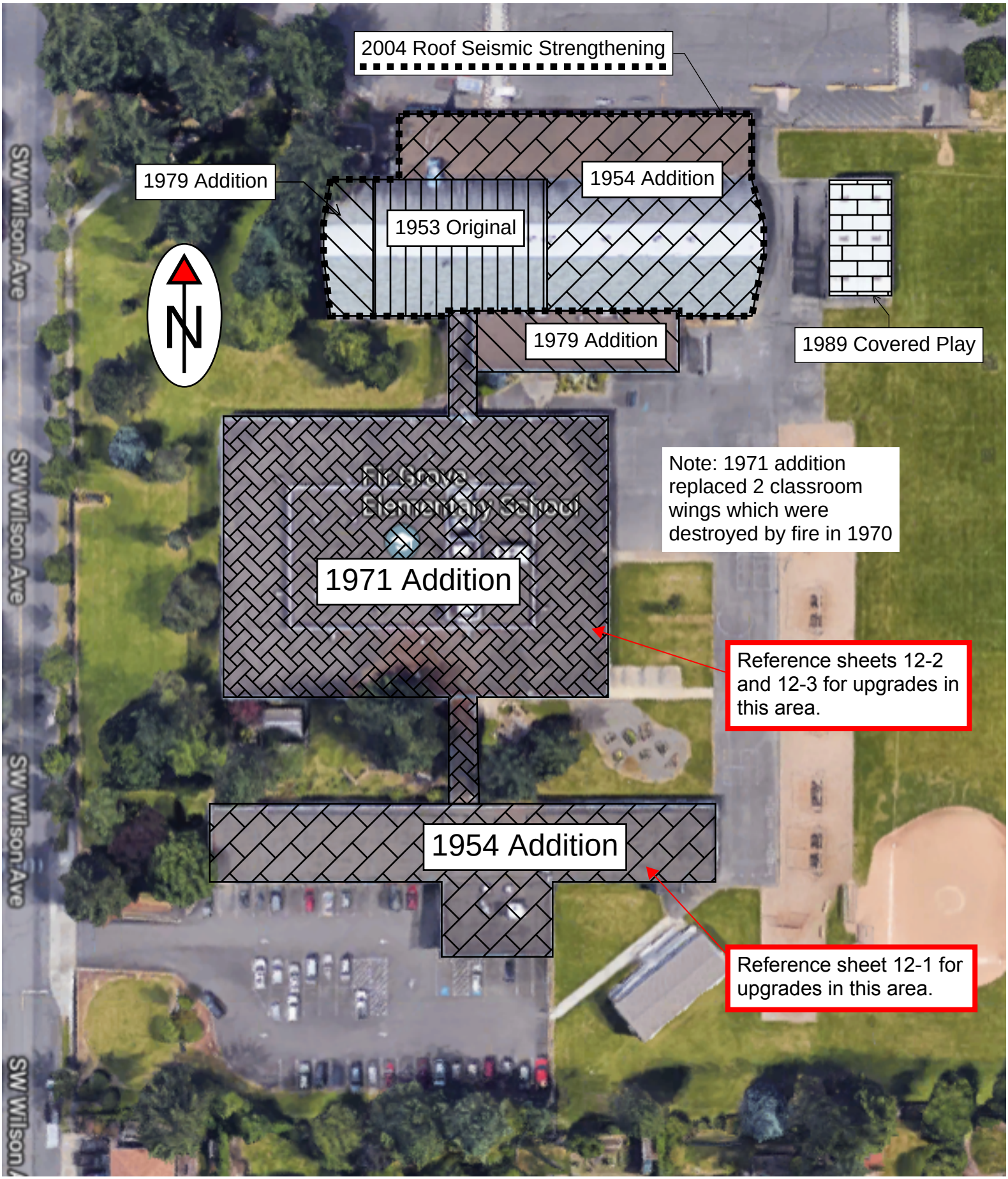
Retrofit Schematics


2004 Addition
1987 Addition
1971 Addition
2001 Roof Seismic Strengthening
Chehalem Elementary School
SINGLE PANE ANNEALED GLASS IS LIFE SAFETY RISK: ADD SAFETY FILM OR REPLACE WINDOWS WITH SAFETY GLASS AT THE MAIN ENTRANCE
N
1970 Original
2001 Roof Seismic Strengthening

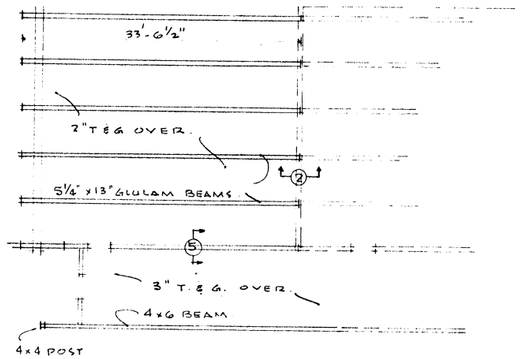
7 - Chehalem

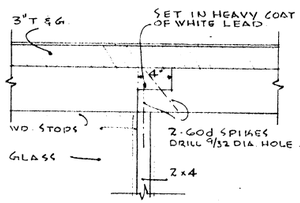

SINGLE PANE ANNEALED GLASS IS LIFE SAFETY RISK: ADD SAFETY FILM OR REPLACE WINDOWS WITH SAFETY GLASS AT BREEZEWAY
N
1992 Addition
1980 Original
1988 Addition
2010 Roof Seismic Strengthening

9 - Elmonica



12 - Fir Grove Elementary





4x6 BEAM CONNECTION ①
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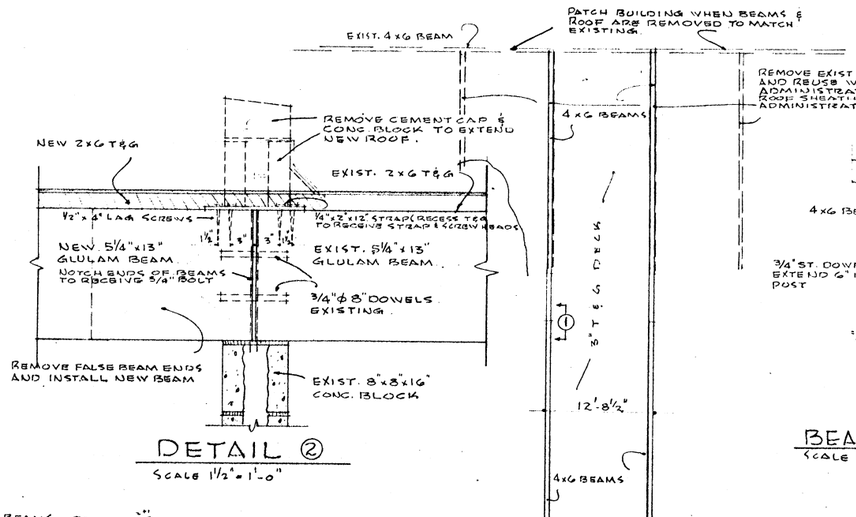

DETAIL ②
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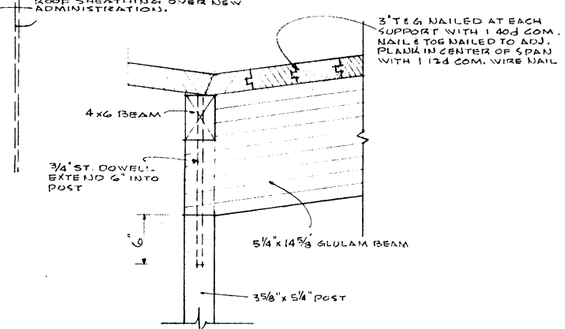

BEAM & POST CONN. ③
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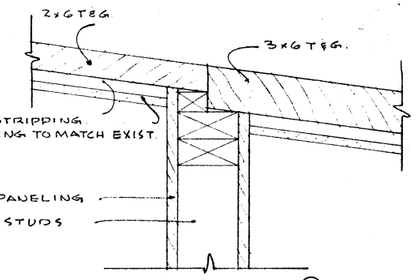
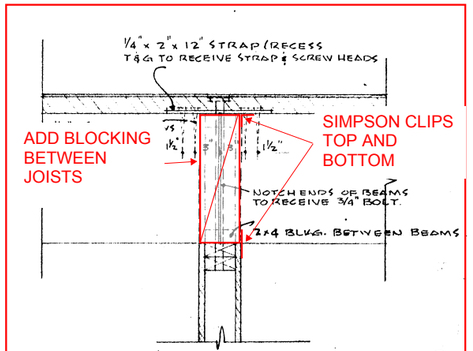


DETAIL ⑤



BEAM CONNECTION DETAIL ④
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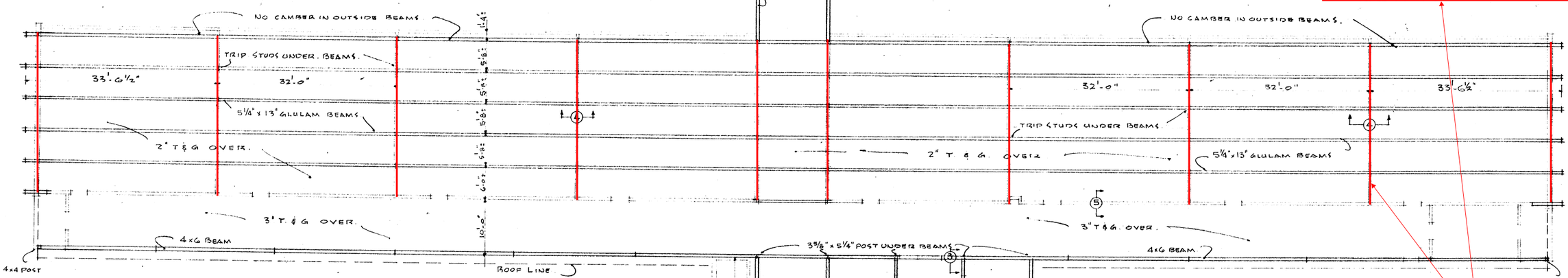
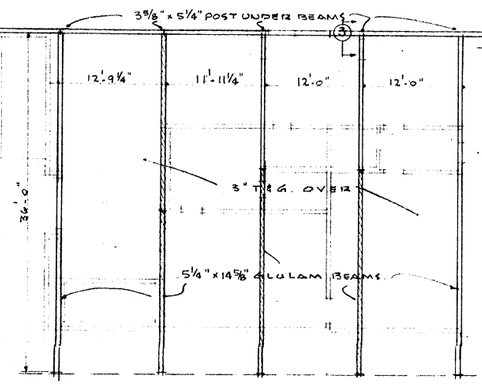


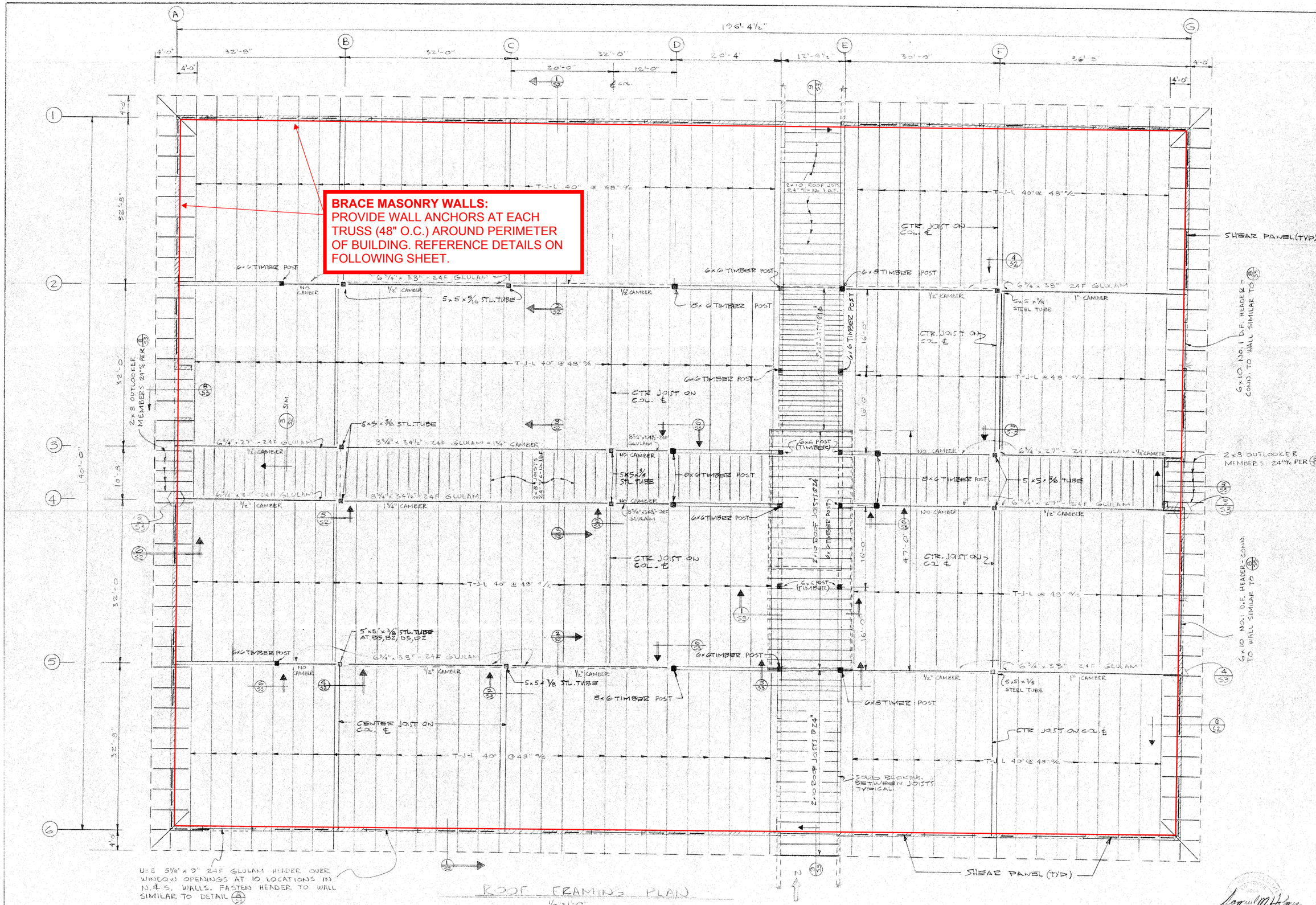


Note!
CROSS HATCHING ON 5¼" x 14⅝" BEAMS INDICATES EXISTING BEAMS TO BE REUSED.

ROOF FRAMING PLAN
SCALE 1/8" = 1'-0"

OPTIONAL TO IMPROVE SEISMIC PERFORMANCE:
ADD A LAYER OF PLYWOOD SHEATHING ON TOP OF (E) T&G ROOF SHEATHING

PROVIDE COMPLETE LOAD PATH:
ADD BLOCKING AND SHEAR CLIPS ALONG TOP OF EACH WALL AT LOCATIONS INDICATED IN RED, REFERENCE DETAIL ABOVE



NEWTON & KIENLE
ARCHITECTS
12705 S.W. BEAVERDAM RD.
BEAVERTON, OREGON 97005
PH. 646-7129

REGISTERED ARCHITECT HARRY C. NEY BEAVERTON, OREGON STATE OF OREGON

ADDITION TO
FIR GROVE SCHOOL
SCHOOL DIST. #48, WASH. COUNTY, OREGON
BEAVERTON, OREGON

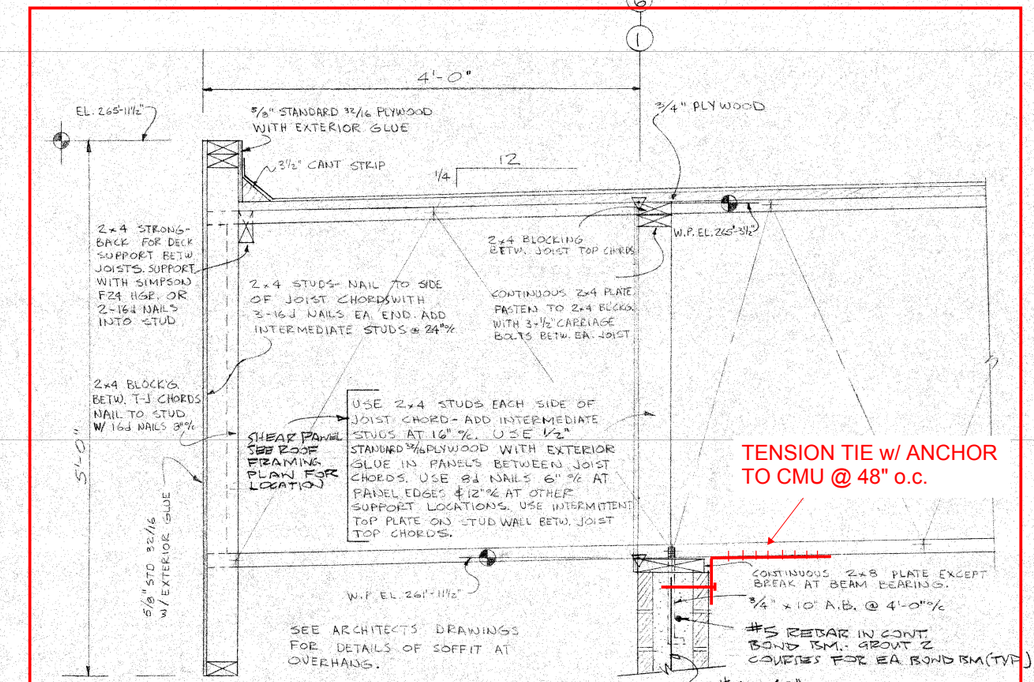
STRUCTURAL

FRAMING PLAN

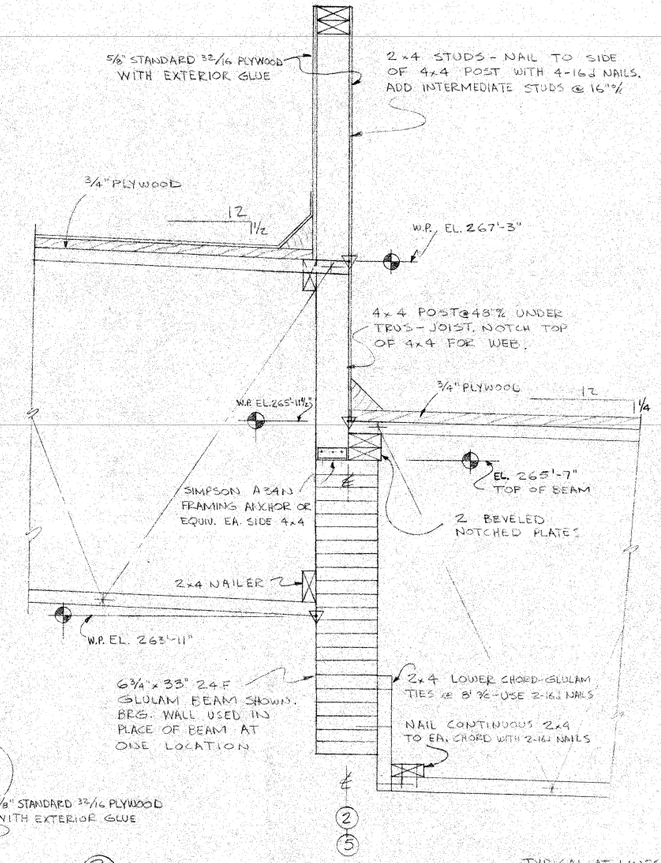
DATE: 12/12/91
DWG BY:
CK BY:

S-1

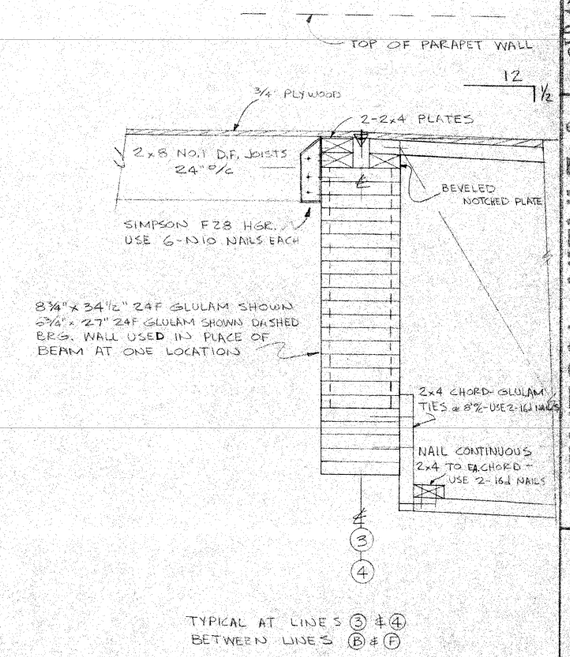
JOB NO. 7141



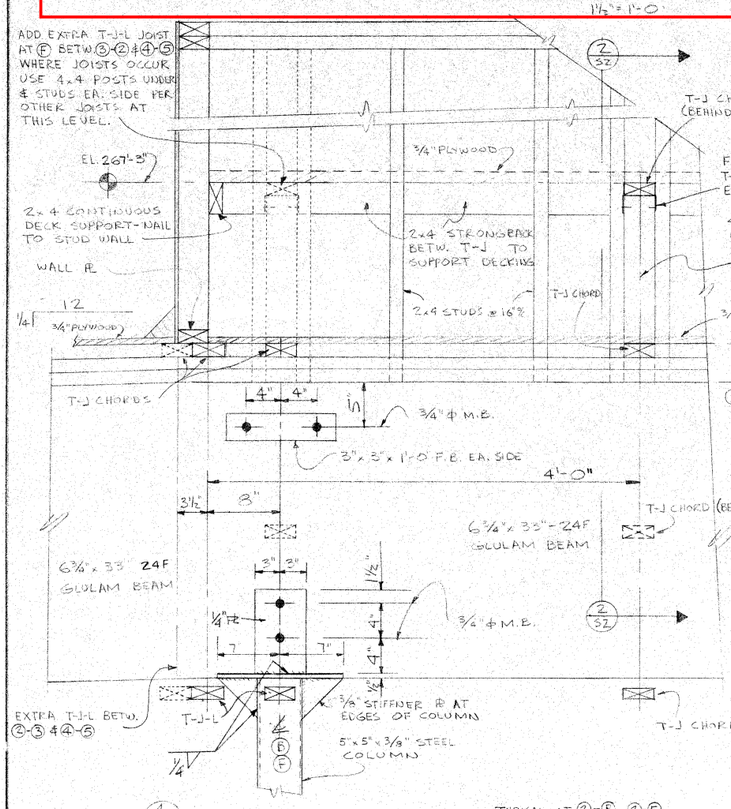
1/32 TRUS-JOIST CANTILEVER DETAIL
1½" = 1'-0"



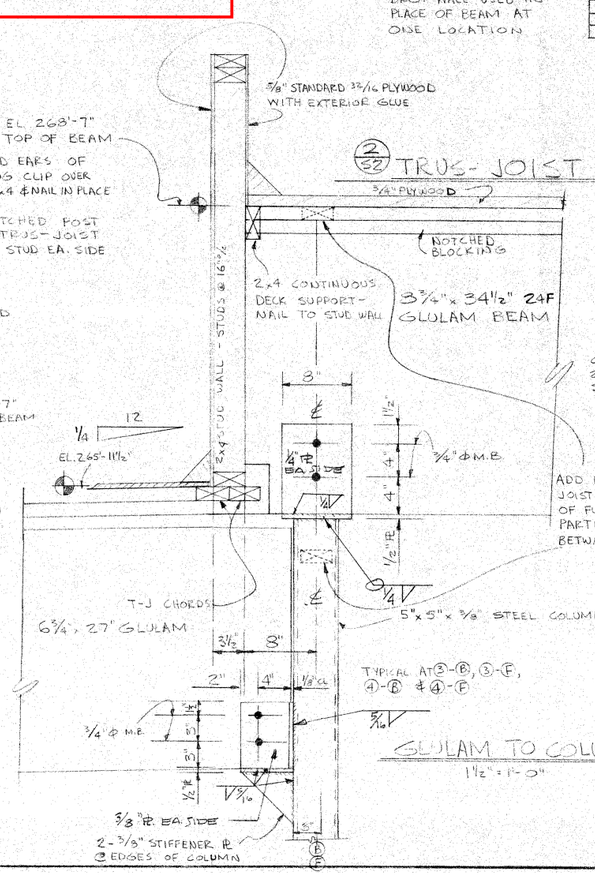
2/32 TRUS-JOIST TO SUPPORT
TYPICAL AT LINES ② & ⑤ BETWEEN LINES Ⓑ & Ⓔ



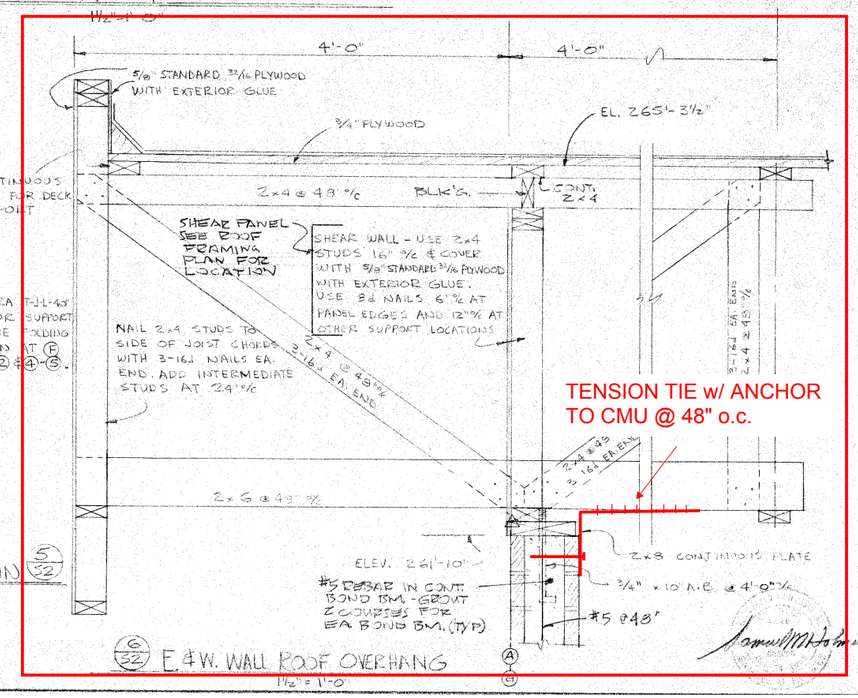
3/32 TRUS-JOIST TO SUPPORT
1½" = 1'-0"



4/32 GLULAM TO COLUMN
TYPICAL AT ②-Ⓔ, ②-Ⓕ, ③-Ⓑ AND ⑤-Ⓕ
1½" = 1'-0"



5/32 GLULAM TO COLUMN
1½" = 1'-0"



6/32 E. & W. WALL ROOF OVERHANG
1½" = 1'-0"

REGISTERED ARCHITECT
OREGON
STATE

NEWTON & KIENE
ARCHITECTS
12705 S.W. BEAVERDAM RD.
BEAVERTON, OREGON 97005
PH 646-7129

ADDITION TO
FIR GROVE SCHOOL
SCHOOL DIST. #48, WASH. COUNTY, OREGON

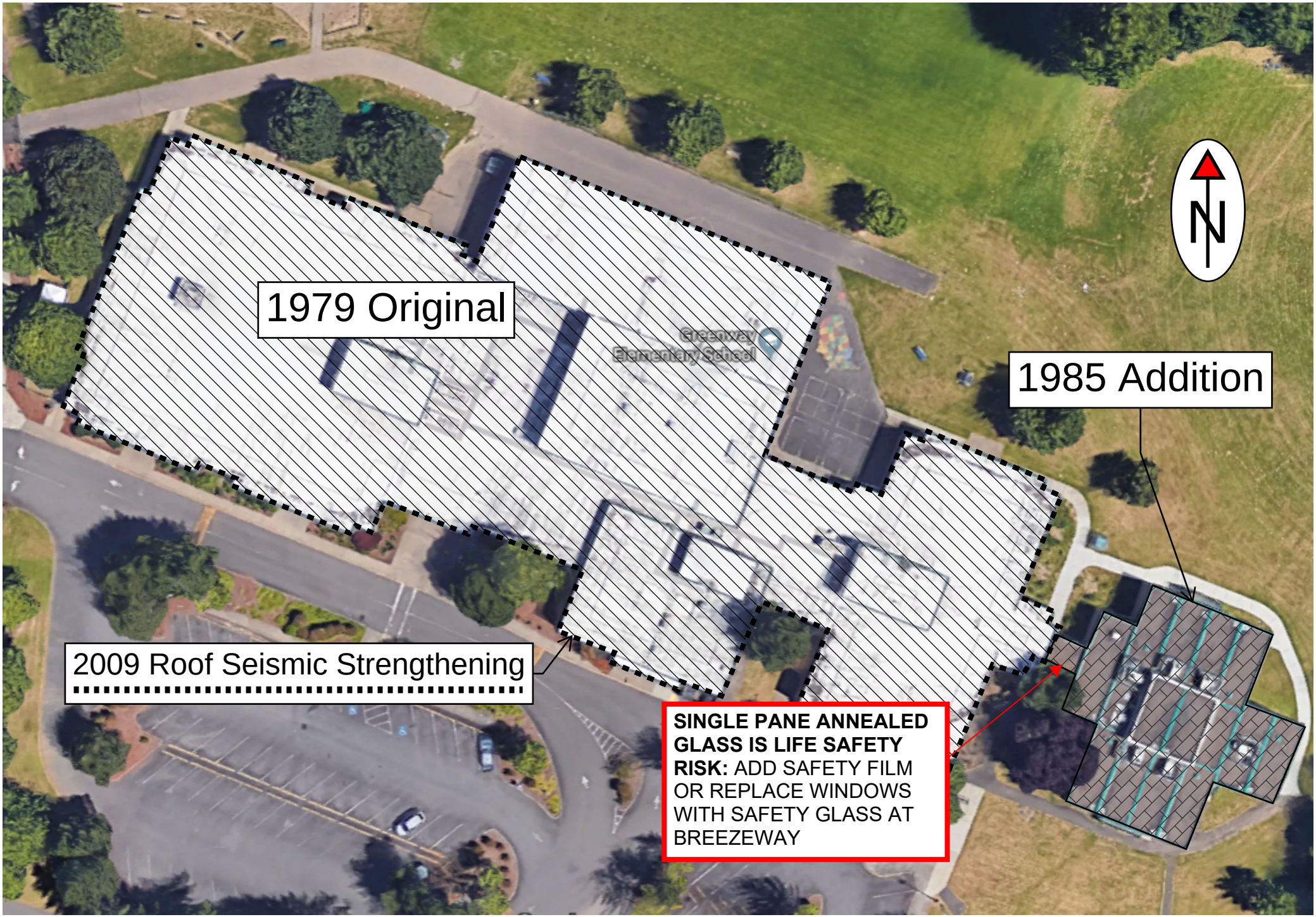
STRUCTURAL

DETAILS

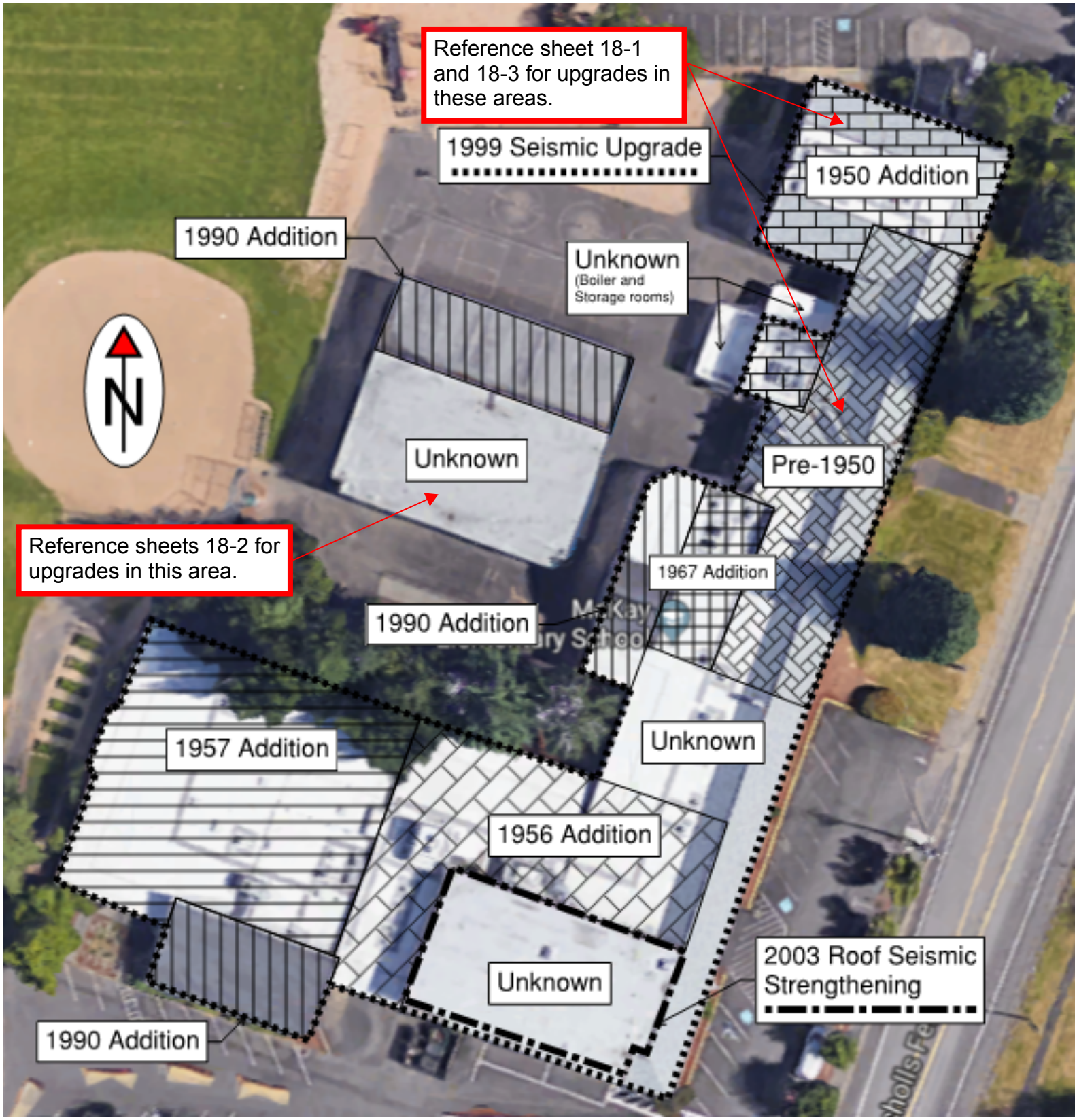
DATE 12/12/91
DWG BY
CK BY

S-2

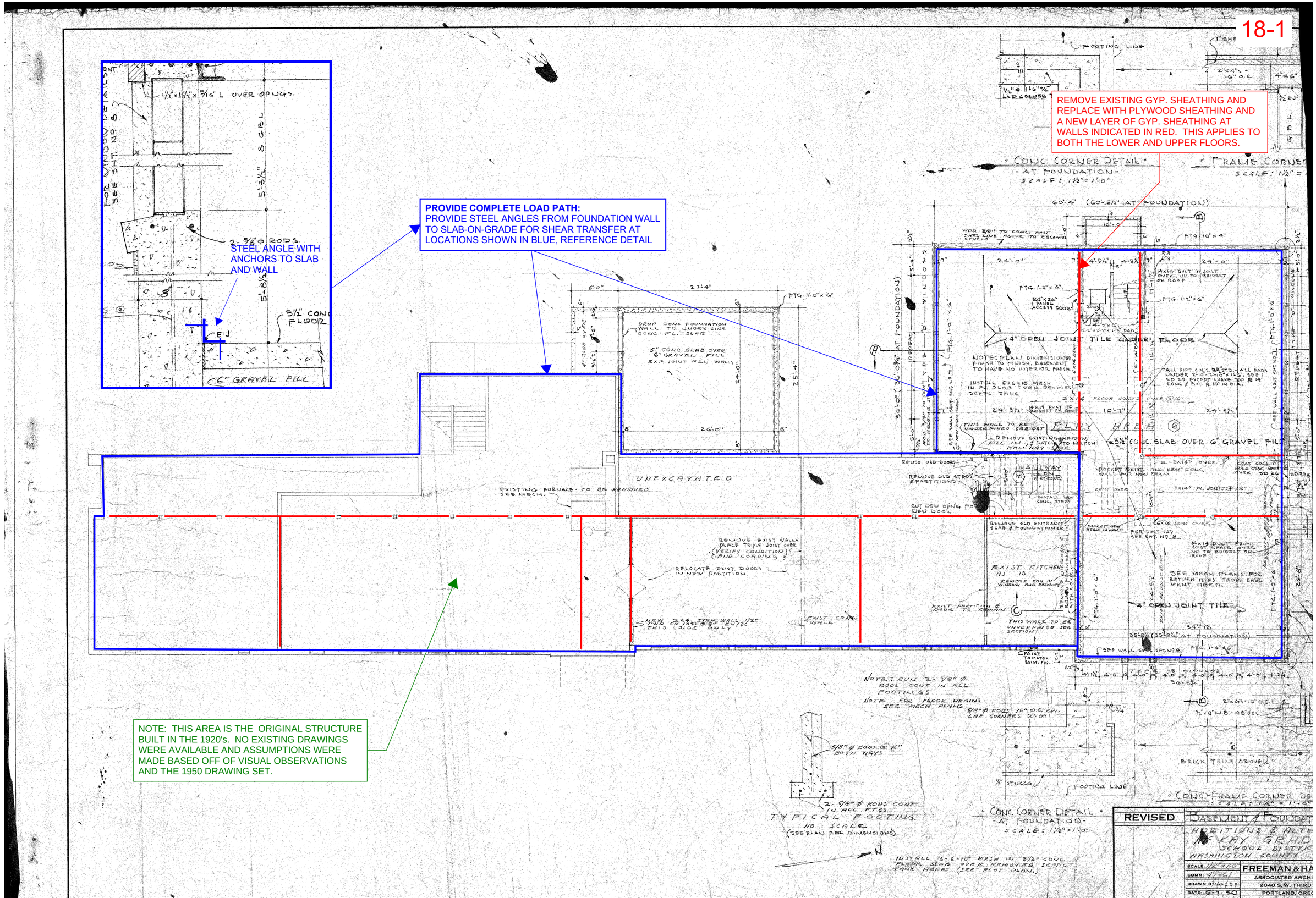
JOB NO. 7141

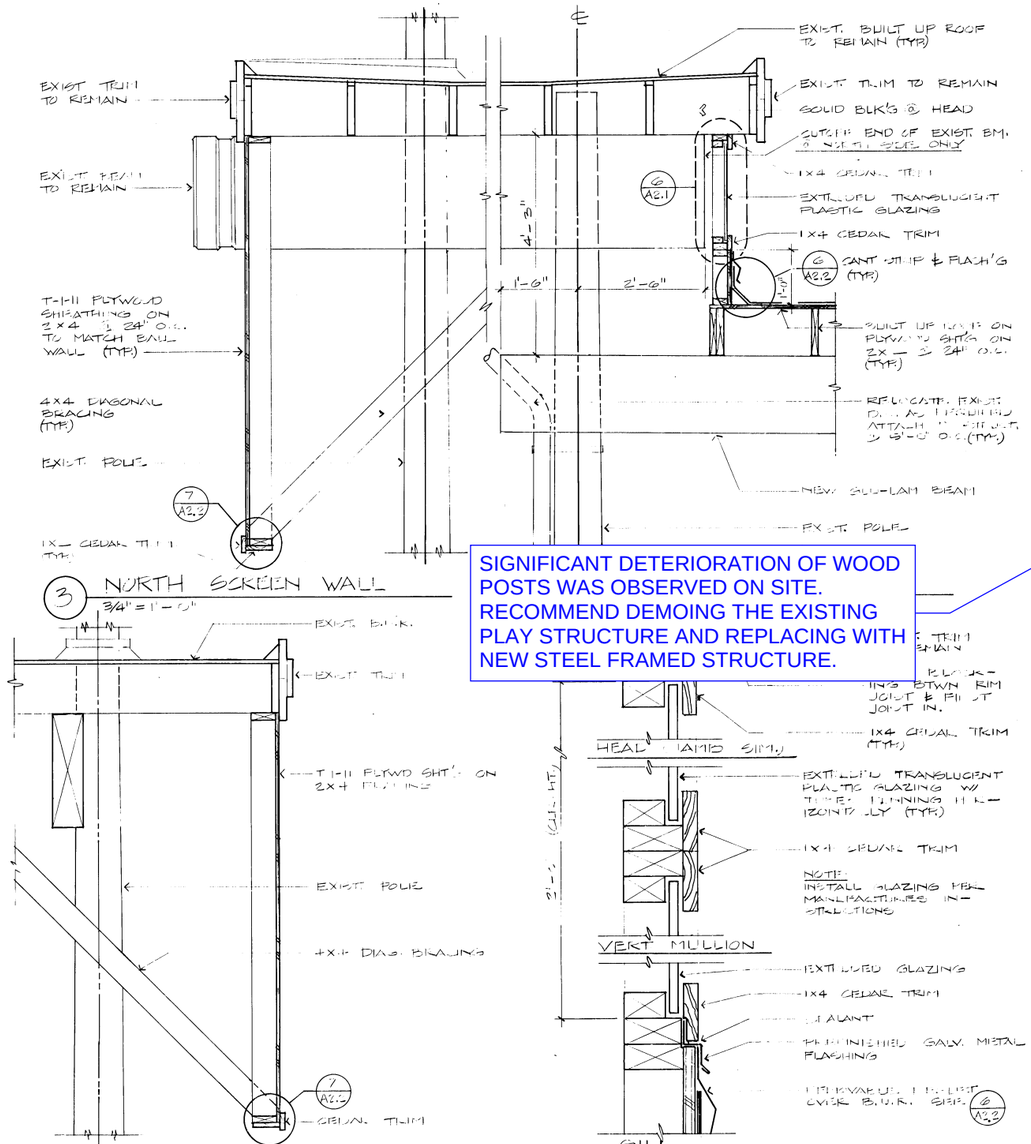

1979 Original
Greenway Elementary School
1985 Addition
2009 Roof Seismic Strengthening
SINGLE PANE ANNEALED GLASS IS LIFE SAFETY RISK: ADD SAFETY FILM OR REPLACE WINDOWS WITH SAFETY GLASS AT BREEZEWAY
N

13 - Greenway

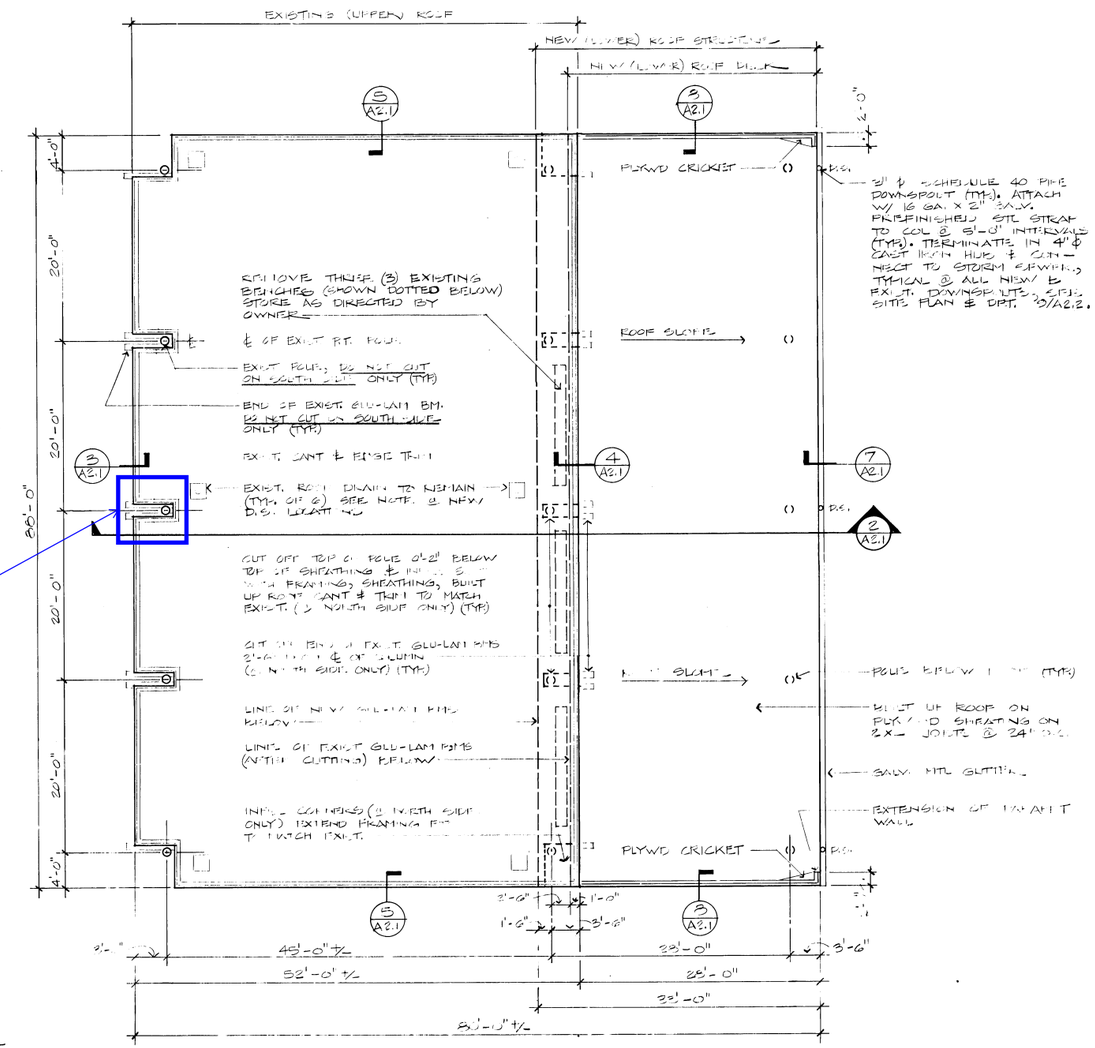


18 - McKay Elementary


REMOVE EXISTING GYP. SHEATHING AND REPLACE WITH PLYWOOD SHEATHING AND A NEW LAYER OF GYP. SHEATHING AT WALLS INDICATED IN RED. THIS APPLIES TO BOTH THE LOWER AND UPPER FLOORS.
PROVIDE COMPLETE LOAD PATH:
PROVIDE STEEL ANGLES FROM FOUNDATION WALL TO SLAB-ON-GRADE FOR SHEAR TRANSFER AT LOCATIONS SHOWN IN BLUE, REFERENCE DETAIL
STEEL ANGLE WITH ANCHORS TO SLAB AND WALL
NOTE: THIS AREA IS THE ORIGINAL STRUCTURE BUILT IN THE 1920's. NO EXISTING DRAWINGS WERE AVAILABLE AND ASSUMPTIONS WERE MADE BASED OFF OF VISUAL OBSERVATIONS AND THE 1950 DRAWING SET.
UNEXCAVATED
PLAY AREA
4" OPEN JOINT TILE UNDER FLOOR
3½" CONC. SLAB OVER 6" GRAVEL FILL
CONC. CORNER DETAIL - AT FOUNDATION - SCALE: 1½"=1'-0"
TYPICAL FOOTING
NO SCALE
(SEE PLAN FOR DIMENSIONS)
REVISED
FREEMAN & HA
ASSOCIATED ARCHI
2040 S.W. THIRD
PORTLAND, OREG



SIGNIFICANT DETERIORATION OF WOOD POSTS WAS OBSERVED ON SITE. RECOMMEND DEMOING THE EXISTING PLAY STRUCTURE AND REPLACING WITH NEW STEEL FRAMED STRUCTURE.



18-2

McKAY ELEMENTARY SCHOOL

COVERED PLAY ADDITION

7485 SW SCHOLLS FERRY RD.
BEAVERTON, OR 97005

BEAVERTON SCHOOL DISTRICT 48
BEAVERTON, OREGON

REGISTERED ARCHITECT
2585
JOHN M. WEEKES
PORTLAND, OREGON
STATE OF OREGON

DULL OLSON WEEKES
ARCHITECTS

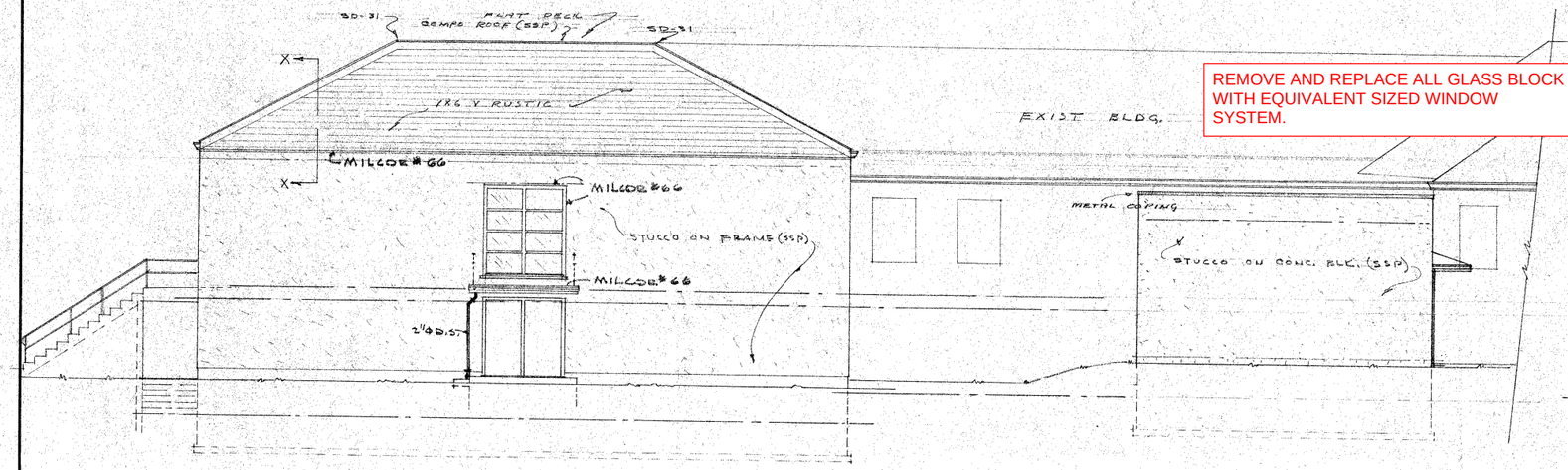
115 NW First Avenue, Suite 301
Portland, Oregon 97209
503-226-6050

DATE: 9/21/16
JOB #: 90007
DRAWN BY: GMN
CHECKED BY:
REVISIONS

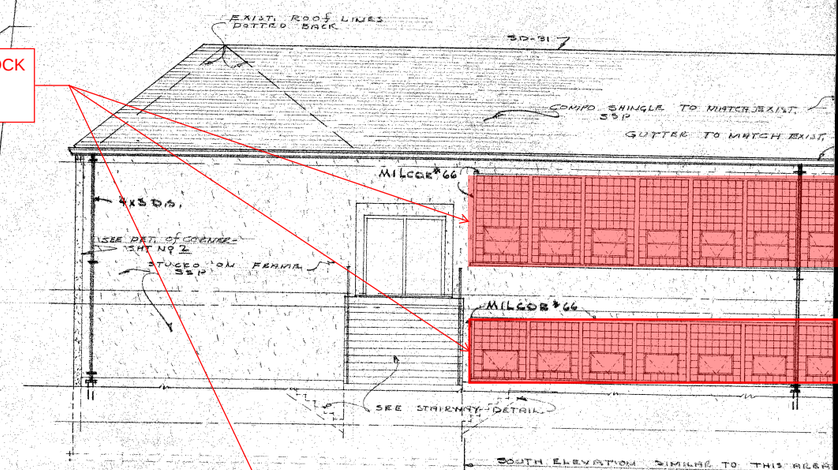
A2.1

61343

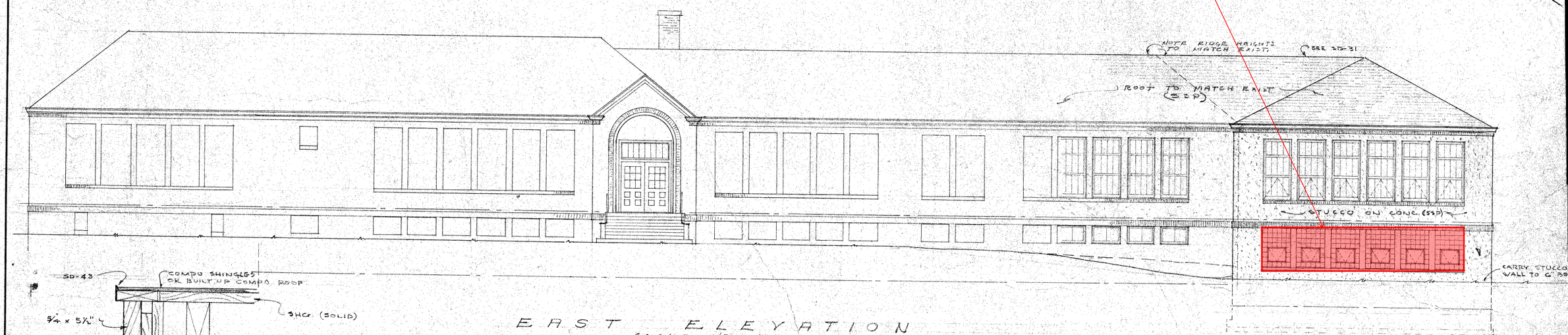
REMOVE AND REPLACE ALL GLASS BLOCK WITH EQUIVALENT SIZED WINDOW SYSTEM.



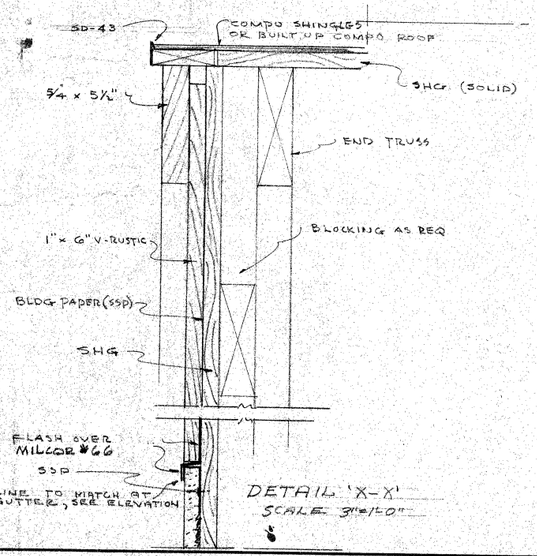
WEST ELEVATION
SCALE 1/8"=1'-0"



NORTH ELEVATION
SCALE 1/8"=1'-0"

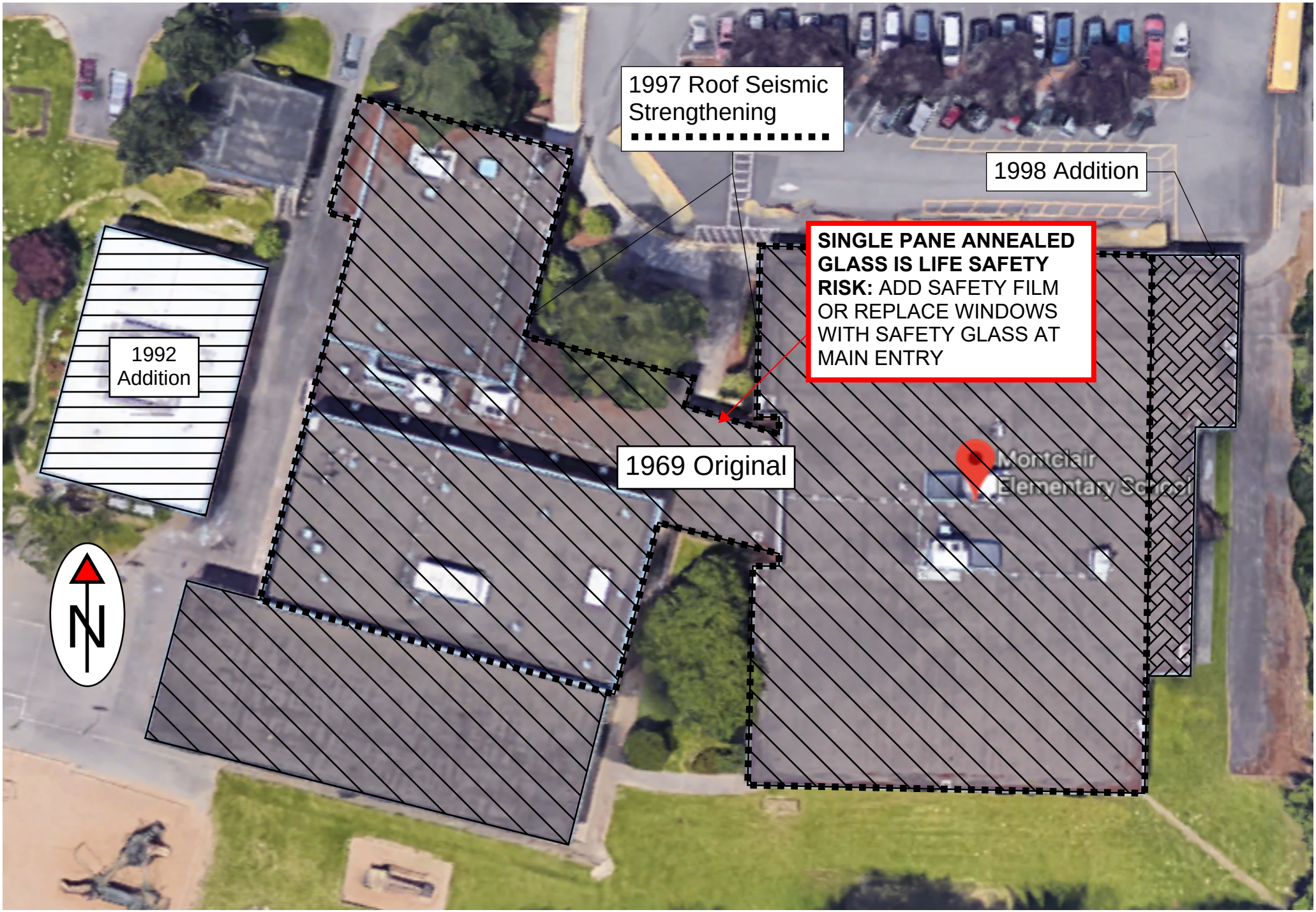


EAST ELEVATION
SCALE 1/8"=1'-0"

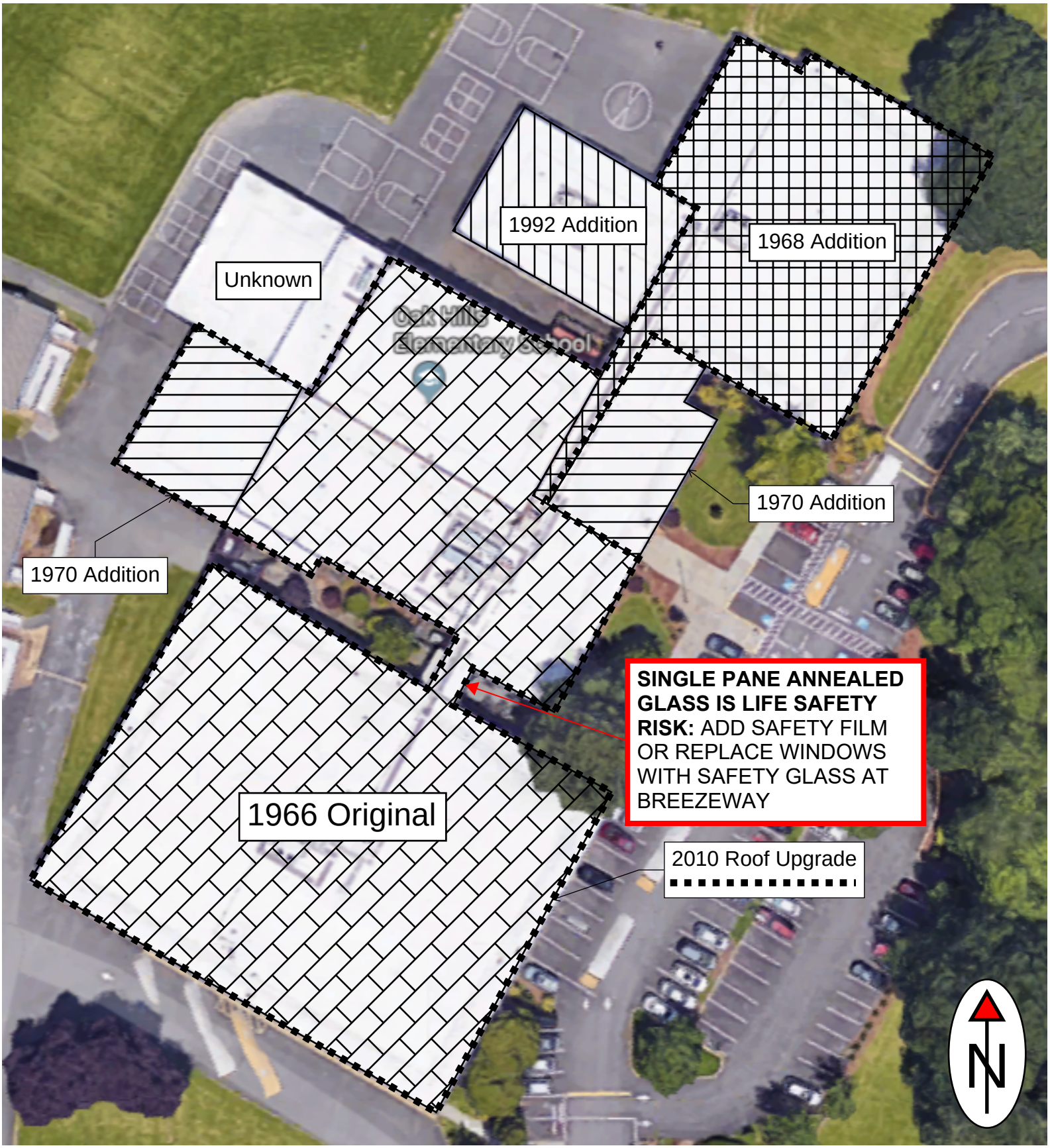


DETAIL 'X-X'
SCALE 3"=1'-0"

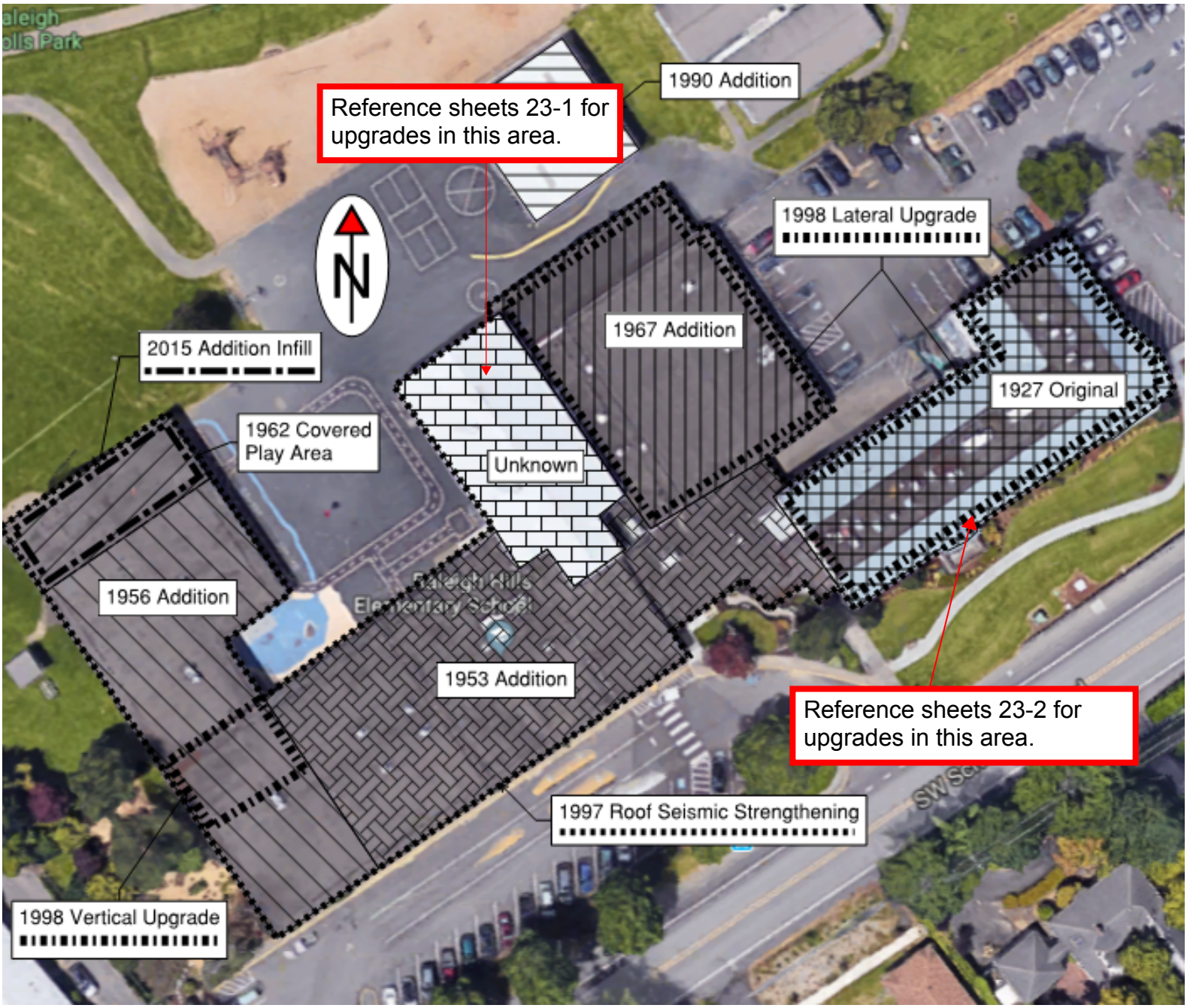
REVISED	ELEVATIONS
	ADDITIONS & ALTERATIONS McKAY GRADE SCHOOL SCHOOL DISTRICT NO. 13 WASHINGTON COUNTY
SCALE: 1/8"=1'-0"	FREEMAN & HAYSLIP
COMM: 49-61	ASSOCIATED ARCHITECTS
DRAWN BY: H.S.F.	2040 S.W. THIRD AVE.
DATE: 6-7-80	PORTLAND, OREGON



20 - Montclair


1992 Addition
1968 Addition
Unknown
Oak Hills Elementary School
1970 Addition
1970 Addition
SINGLE PANE ANNEALED GLASS IS LIFE SAFETY RISK: ADD SAFETY FILM OR REPLACE WINDOWS WITH SAFETY GLASS AT BREEZEWAY
1966 Original
2010 Roof Upgrade
N

22 - Oak Hills

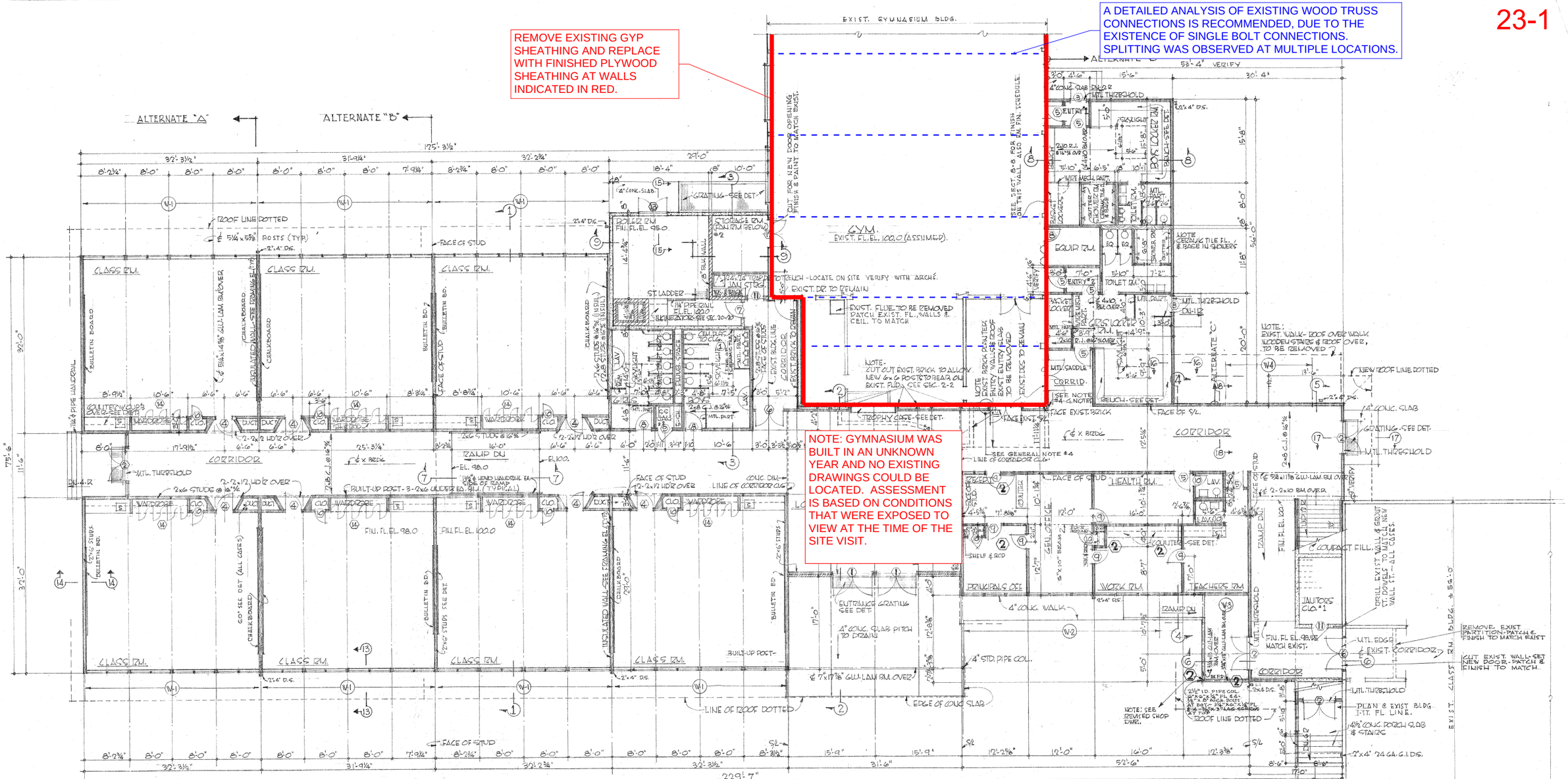


23 - Raleigh Hills Elementary

REMOVE EXISTING GYP SHEATHING AND REPLACE WITH FINISHED PLYWOOD SHEATHING AT WALLS INDICATED IN RED.

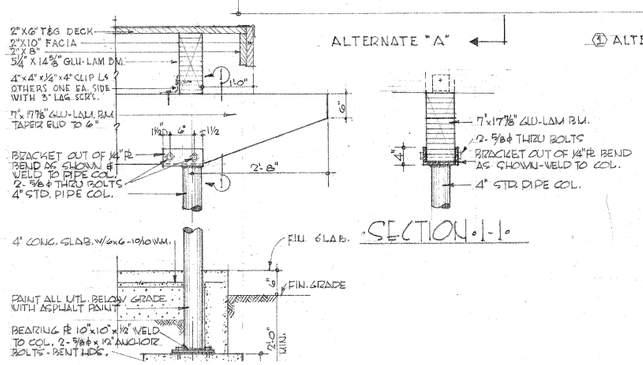
A DETAILED ANALYSIS OF EXISTING WOOD TRUSS CONNECTIONS IS RECOMMENDED, DUE TO THE EXISTENCE OF SINGLE BOLT CONNECTIONS. SPLITTING WAS OBSERVED AT MULTIPLE LOCATIONS.

NOTE: GYMNASIUM WAS BUILT IN AN UNKNOWN YEAR AND NO EXISTING DRAWINGS COULD BE LOCATED. ASSESSMENT IS BASED ON CONDITIONS THAT WERE EXPOSED TO VIEW AT THE TIME OF THE SITE VISIT.



FIRST FLOOR PLAN

SCALE 1/8" = 1'-0"



GENERAL NOTES

1. SEE MECHANICAL PLANS FOR ADDITIONAL PLUMBING DETS. NOTES, ETC.
2. ALL VERTICAL FRAME PARTITIONS SET TO MASONRY TO BE SECURED WITH ½"x 8" ANCHOR BOLTS @ 32" %.
3. ALL EXTERIOR FRAME PARTITIONS - SET PLATES WITH ½"x 8" ANCHOR BOLTS @ 48" % - SET INTERIOR PARTIT. WITH ½" x 8" ANCHOR BOLTS @ 72" %.
4. ARCHITECTS TO VERIFY ON JOB EXACT METHOD OF RETURNING FINISH INTO MASONRY.
5. ALL FOOTING EXCAVATIONS TO RUN TO FIRM UNDISTURBED SOIL.
6. ALL BACKFILL UNDER SLABS TO BE WELL PUDDLED & COMPACTED.
7. MIN. WALL STEEL, UNLESS OTHERWISE NOTED, TO BE ½"ϕ @ 18" % EA. WAY.
8. LAP ALL REINF. STEEL 30 DIA. MIN. - EXTEND ALL STEEL AROUND CORNERS MIN. OF 24".
9. ALL CONC. WORK SHALL CONFORM TO THE LATEST A.S.T.M. STANDARDS.
10. ALL CONC. SHALL BE 2500 P.S.I. MIN. @ 28 DAYS.
11. DROP CONC. SLABS 1½" TO RECEIVE CERAMIC TILE AS CALLED FOR.
12. ALL CUTTING & PATCHING IN EXIST. BLDGS. SHALL BE FINISHED IN AN ACCEPTABLE MANNER TO MATCH EXIST. WORK.
13. ALL FRAME PARTITIONS TO BE 2"x4" @ 16" % UNLESS SHOWN OTHERWISE.
14. OPENINGS TO SHOWER RMS. TO BE 3'-0" WIDE x 6'-8" WITH 6" CERAMIC TILE CURBS.
15. CONTRACTOR TO PROVIDE A 24"x 30" ACCESS DR. OF ¾" PLYWD. IN CEILING TO JANITOR CLO. NO. 2.

ABBREVIATIONS

S/L - SHIPLAP
S - SINK
CONC - CONCRETE
R.J. - ROOF JOISTS
FND - FOUNDATION
D.S. - DOWN SPOUT
AC. - ACOUSTIC
W.M. - WIRE MESH.
E.W. - EACH WAY.
TH. - THICKNESS
CORR - CORRIGATED.
ST. - STEEL.
G.I. - GALVANIZED IRON
S.S. - SLOP SINK
WR. - WARDROBE
F.D. - FLOOR DRAIN

SYMBOLS

EARTH OR SOIL
CONCRETE
WOOD
FRAME PARTITION
INSULATED FRAME PARTITION
BRICK
STEEL
FIBER-GLASS INSULATION
MASONRY BLOCK.

REV	DATE	DESCRIPTION	BY
2	11/11/53	CHANGED DRS, REMOVED CLO. AS NOTED	CPH.
1	2/27/53	ALTERNATE ADDED & LETTER CHANGED	RBM

FLOOR PLAN & DETAILS

ADDITION NO. 3 TO

23-2

LATERAL UPGRADE LEGEND

- LATERAL MODIFICATIONS TO BE PERFORMED IN THE ATTIC SPACE BY ADDING A SHEAR TRANSFER MECHANISM. SEE DETAIL AS NOTED.
- LATERAL MODIFICATIONS TO BE PERFORMED AT THE FOUNDATION LEVEL BY ADDING ADDITIONAL FOUNDATION ANCHORAGE. SEE DETAIL AS NOTED.
- CHIMNEY HEIGHT TO BE REDUCED TO AN APPROPRIATE SAFE LEVEL.
- EXISTING FRAMED WALLS TO BE MODIFIED. REMOVE EXISTING WALL SHEATING TO EXPOSE STUDS. REPLACE WITH NEW 1/2" PLYWOOD AND NAIL ACCORDING TO SHEARWALL SCHEDULE ITEM NUMBER NOTED ON PLANS. THIS INCLUDES ADDITIONAL ANCHORAGE NOTED ON SHEARWALL SCHEDULE. SEE DETAIL 6/S3.1.

ADDITIONAL ABBREVIATIONS

EF — EACH FACE OF WALL

HOLDOWN SCHEDULE

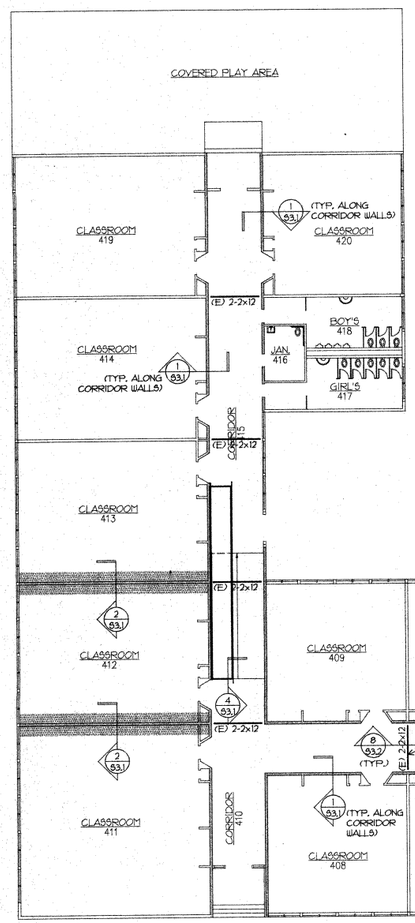
PHD8 — 'SIMPSON' PHD8 HOLDOWN WITH 1/8"Φ THREADED ROD W/ NUT & WASHER IN EPOXY FILLED HOLE (MIN. EMBED 3" AT SLAB AND 6 1/2" AT STEM WALL). PROVIDE 2-2x6 STUD POST AT HOLDOWN.

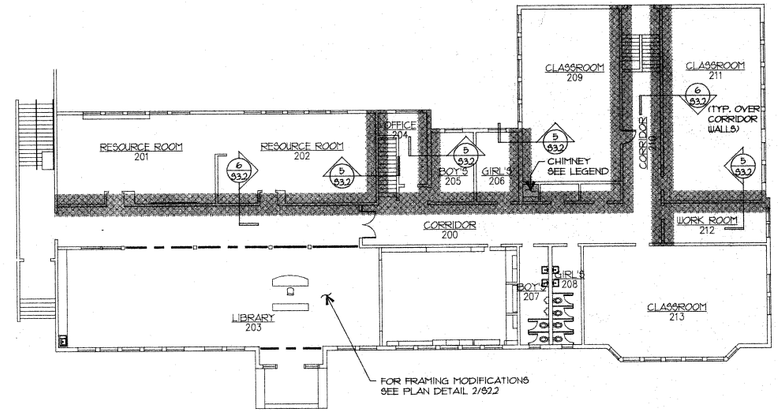
WALL SCHEDULE

A — 2x6 STUDWALL @ 16" o/c (INTERIOR BEARING WALL)

NOTES:

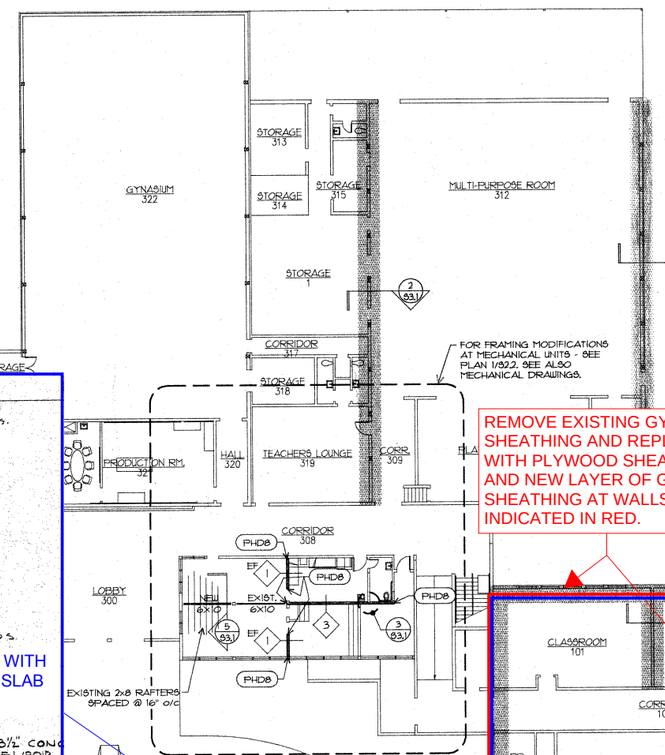
1). FOR SHEARWALL SCHEDULE REFER TO SHEET S3.1.

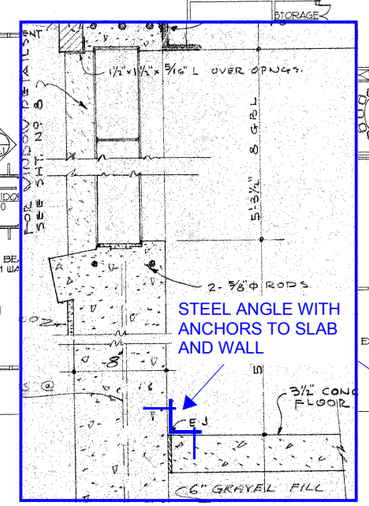


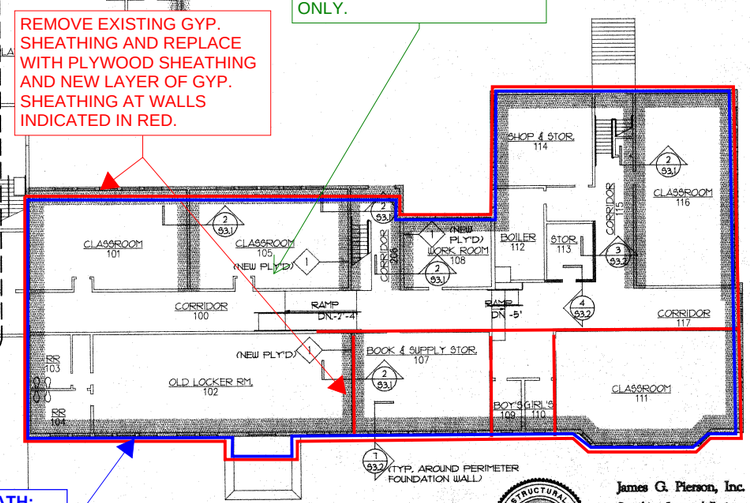


2 / S2.1 LATERAL UPGRADE PLAN – UPPER FLOOR

1/16" = 1'-0"







NOTE: NO EXISTING DRAWINGS ARE AVAILABLE FOR THIS AREA WHICH WAS CONSTRUCTED IN THE 1920's. UPGRADE RECOMMENDATIONS SHOWN ARE BASED OFF OF VISUAL OBSERVATIONS ONLY.

REMOVE EXISTING GYP. SHEATHING AND REPLACE WITH PLYWOOD SHEATHING AND NEW LAYER OF GYP. SHEATHING AT WALLS INDICATED IN RED.

1 / S2.1

PROVIDE COMPLETE LOAD PATH: PROVIDE STEEL ANGLES FROM FOUNDATION WALL TO SLAB-ON-GRADE FOR SHEAR TRANSFER AT LOCATIONS SHOWN IN BLUE, REFERENCE DETAIL

LSW ARCHITECTS, P.C.

ARCHITECTURE
PLANNING/INTERIORS

TEL (503) 274-5432
FAX (503) 274-0085

825 NW Glisan St.
Portland, OR. 97209

REGISTERED PROFESSIONAL ENGINEER 6272 OREGON JULY 12, 1988 JERRY W. ESTOUP EXP. 12/31/97

VERTICAL PACKAGE 9
RALEIGH HILLS ELS
BEAVERTON SCHOOL DISTRICT #48
5225 SW SCHOLLS FERRY RD., BEAVERTON, OR 97225

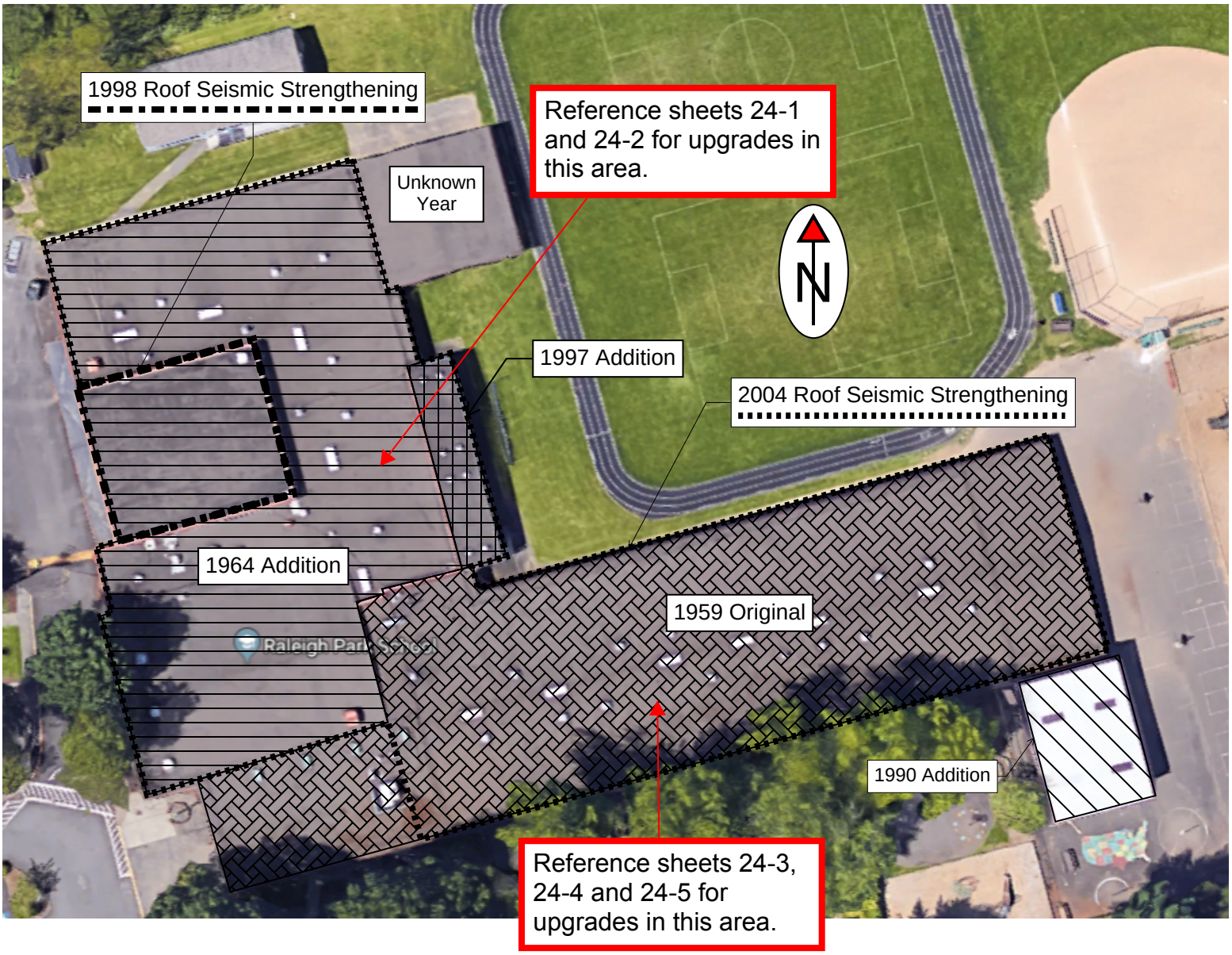
Issued : 01.20.98
Revisions :

Date : 01.20.98
Job No. : 9757
Drawn by : MTD
Checked by : MTD
Drawing Title : LATERAL UPGRADE PLAN

Sheet No. S2.1

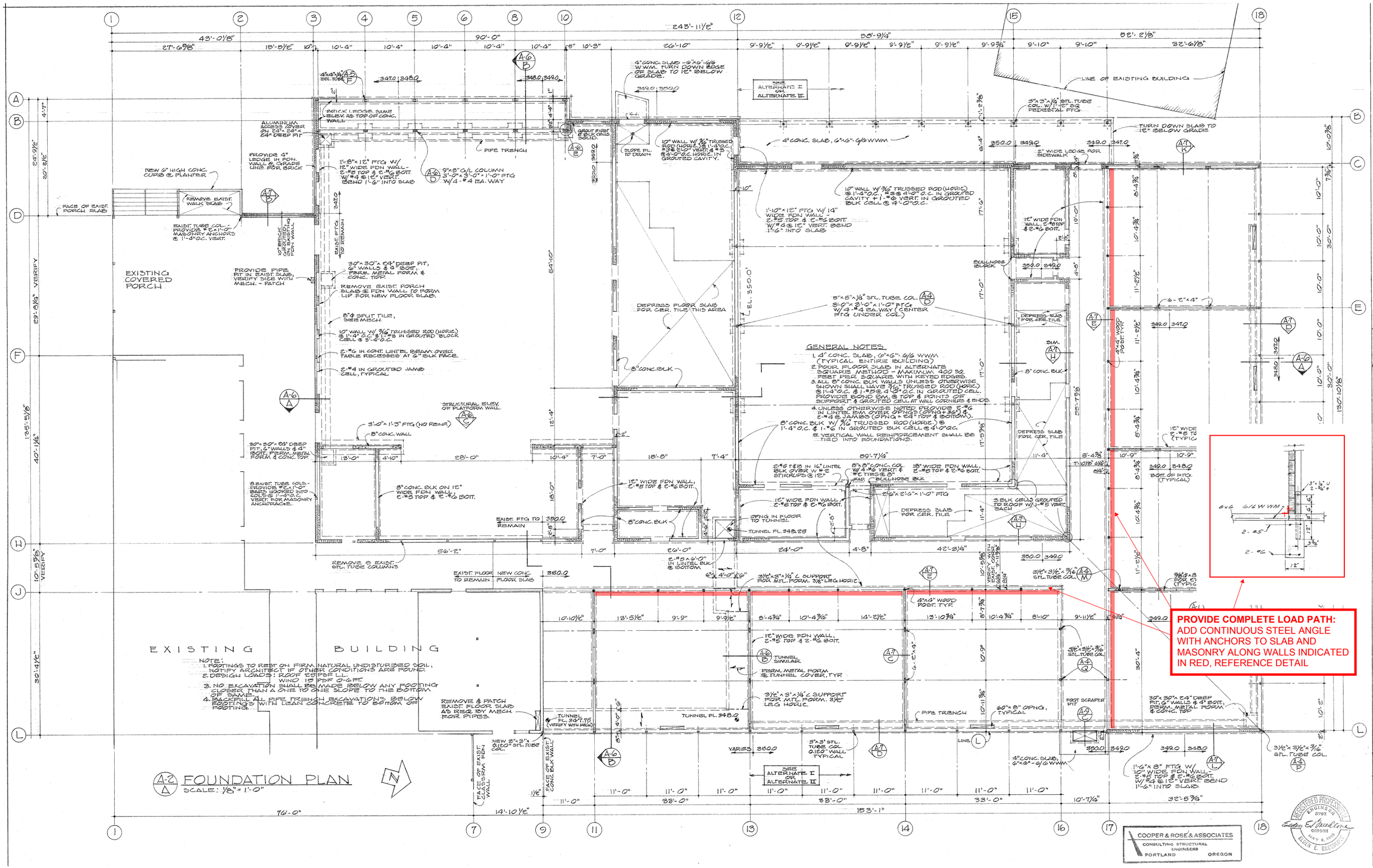
65244

James G. Pierson, Inc.
Consulting Structural Engineers
320 SW Stark Street, Suite 535
Portland, Oregon 97204
Phone: (503)226-1286 Fax: (503)226-3130
e-Mail: mail@jgpierson.com



24 - Raleigh Park

24-1



FOUNDATION PLAN

WILLIAMS & EHMANN ... Architects
3727 S. E. MILWAUKIE AVE. PORTLAND 2, OREGON
Max P. Williams A.I.A. Richard C. Ehmann A.I.A. C.S.I.
Phone: 232-1195

REGISTERED ARCHITECT MAX P. WILLIAMS PORTLAND, OREGON STATE OF OREGON

ADDITION TO
RALEIGH PARK ELEMENTARY SCHOOL
FOR BEAVERTON SCHOOL DISTRICT NO. 48
S.W. 78TH & NORTHSHIRE ST. - WASHINGTON COUNTY, ORE.

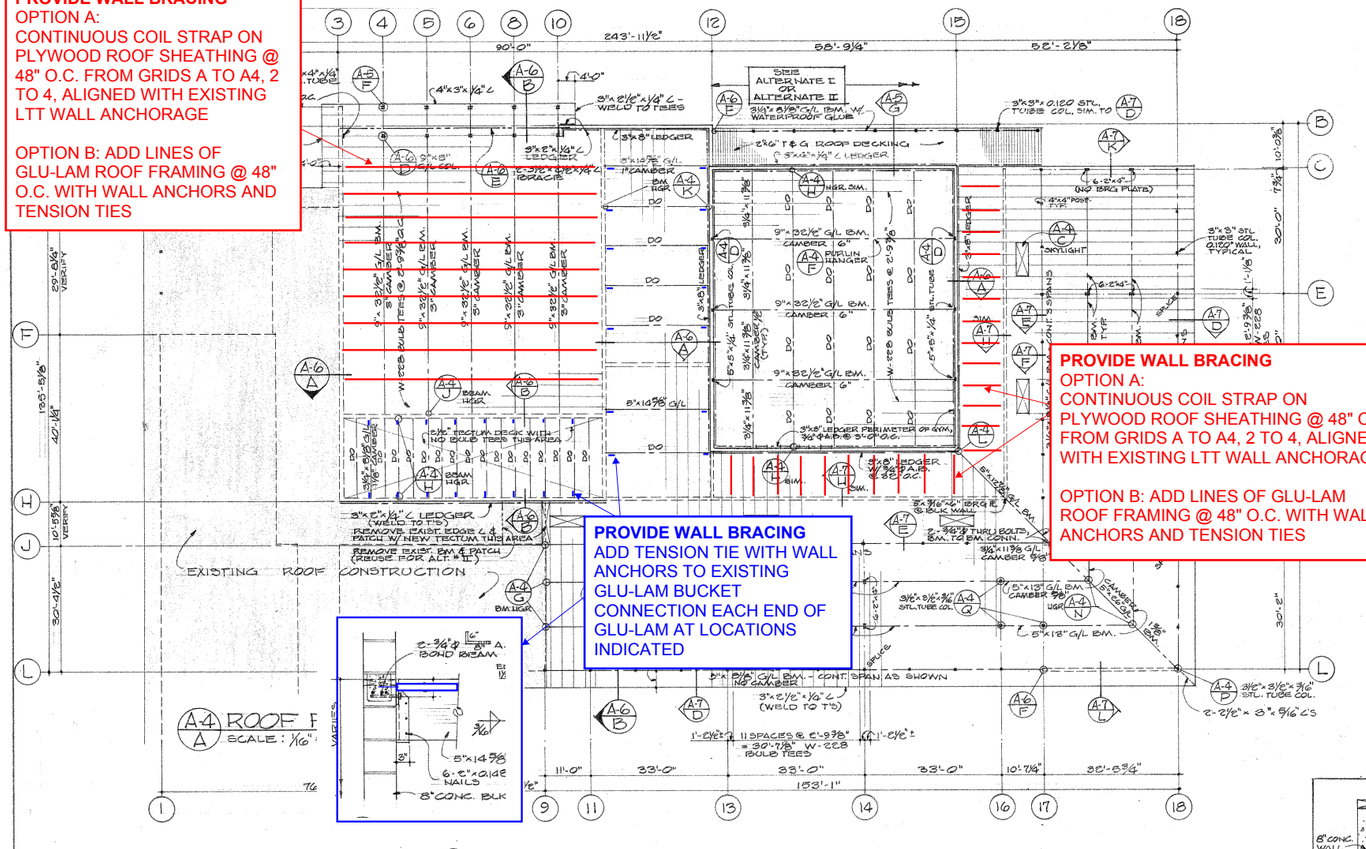
FILE NO.	26
COMM. NO.	64-12
DRAWN	J.H.
CHECKED	RCE
DATE	20 AUGUST '64
SHEET NO.	A-2
OF 10	

COOPER & ROSE & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
PORTLAND OREGON

REGISTERED PROFESSIONAL ENGINEER 3797 OREGON MAY 6, 1965 ELDEN E. BREEDLOVE

PROVIDE WALL BRACING
OPTION A:
CONTINUOUS COIL STRAP ON PLYWOOD ROOF SHEATHING @ 48" O.C. FROM GRIDS A TO A4, 2 TO 4, ALIGNED WITH EXISTING LTT WALL ANCHORAGE

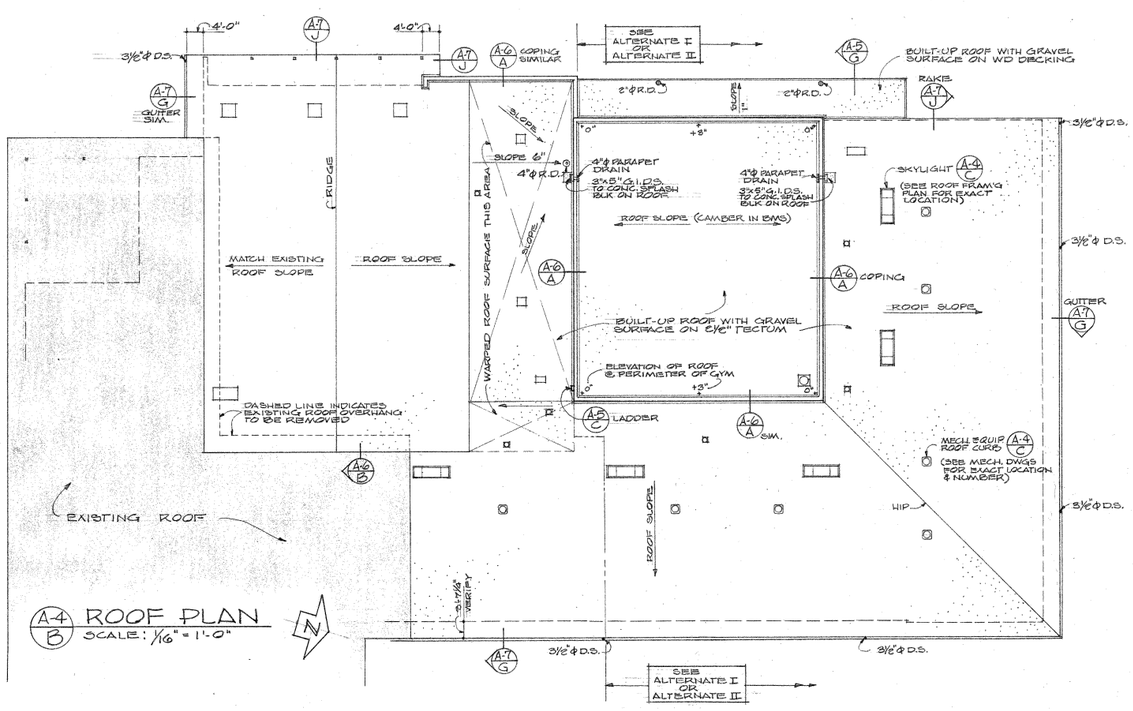
OPTION B: ADD LINES OF GLU-LAM ROOF FRAMING @ 48" O.C. WITH WALL ANCHORS AND TENSION TIES

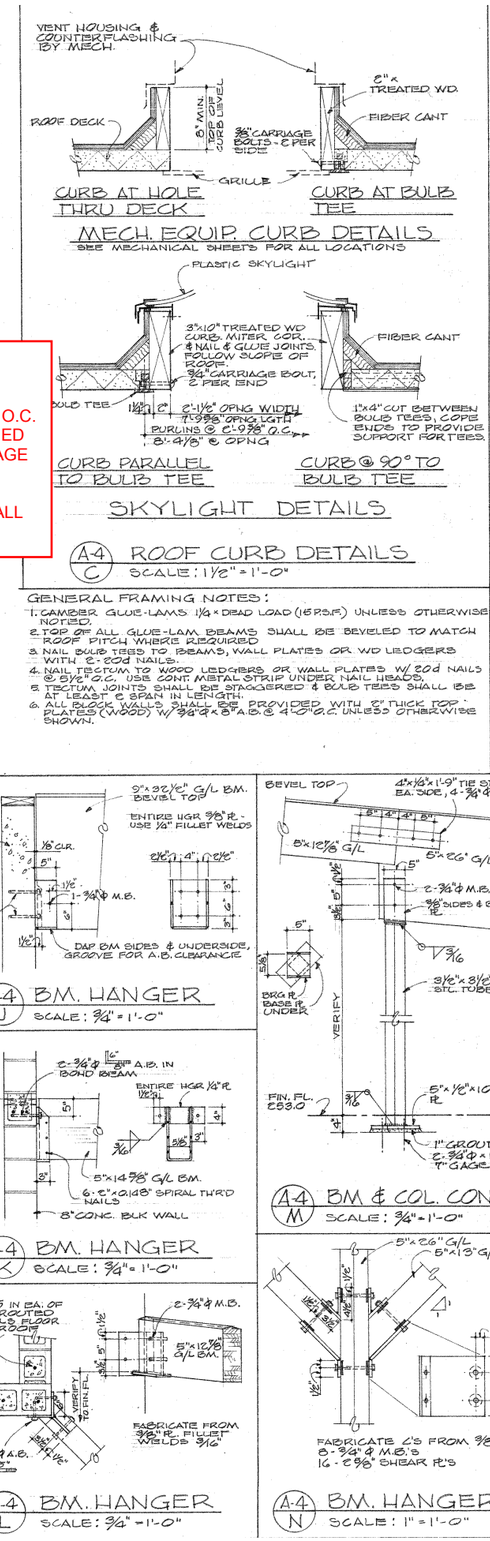


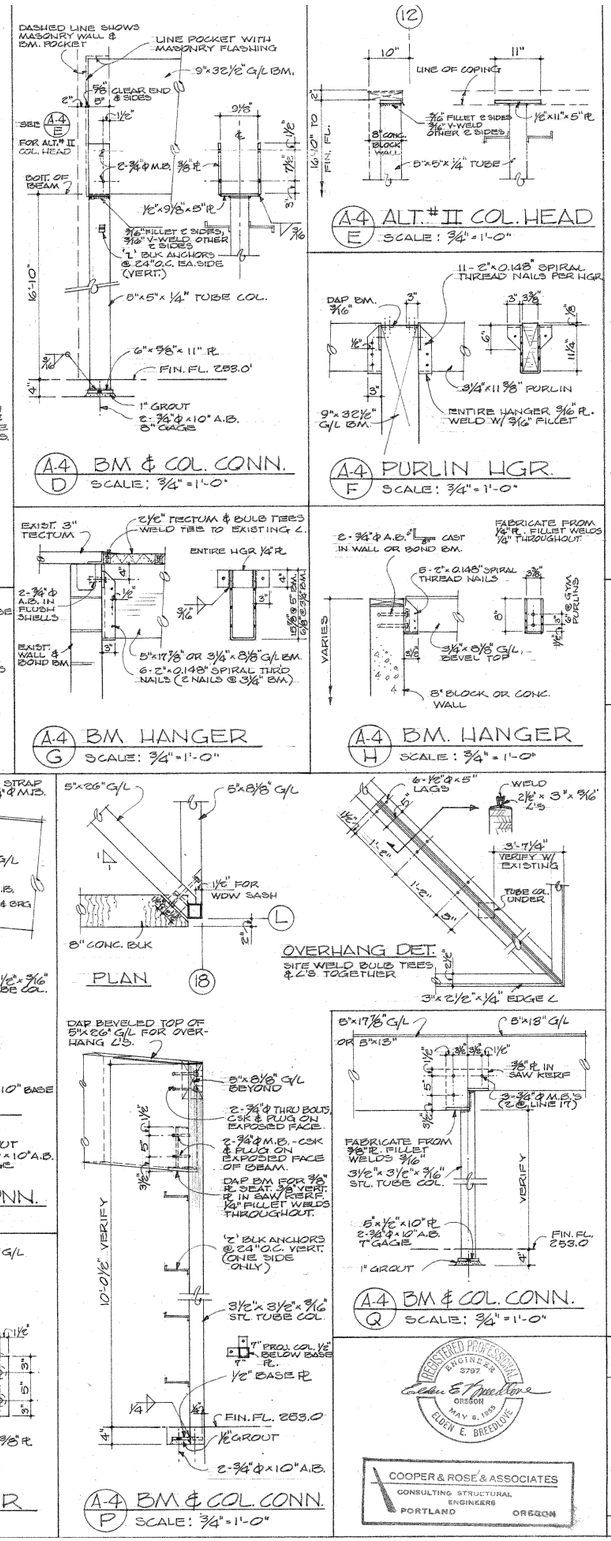
PROVIDE WALL BRACING
ADD TENSION TIE WITH WALL ANCHORS TO EXISTING GLU-LAM BUCKET CONNECTION EACH END OF GLU-LAM AT LOCATIONS INDICATED

PROVIDE WALL BRACING
OPTION A:
CONTINUOUS COIL STRAP ON PLYWOOD ROOF SHEATHING @ 48" O.C. FROM GRIDS A TO A4, 2 TO 4, ALIGNED WITH EXISTING LTT WALL ANCHORAGE

OPTION B: ADD LINES OF GLU-LAM ROOF FRAMING @ 48" O.C. WITH WALL ANCHORS AND TENSION TIES







WILLIAMS & HIMANN - ARCHITECTS
3777 S.E. MILWAUKIE AVE. PORTLAND, OREGON
Richard C. Ehmann A.I.A. C.S.I.
Max P. Williams A.I.A.
Phone: 232-1195

ROOF & ROOF FRAMING PLANS

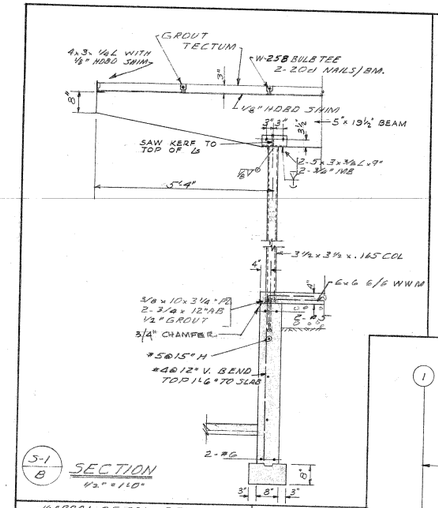
REGISTERED ARCHITECT MAX P. WILLIAMS PORTLAND, OREGON STATE OF OREGON

ADDITION TO
RALEIGH PARK ELEMENTARY SCHOOL
FOR BEAVERTON SCHOOL DISTRICT NO. 48
S.W. 78TH & NORTHSHIRE ST. • WASHINGTON COUNTY, ORE.

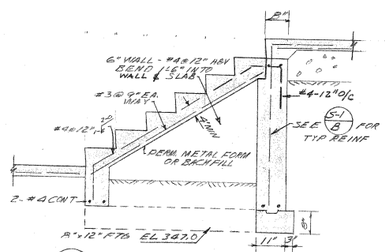
DATE	
FILE NO.	26
COMM. NO.	64-12
DRAWN	J.H.
CHECKED	PCE
DATE	20 AUGUST '64
SHEET NO.	A-4
OF 10	
REVISION	
No.	

REGISTERED PROFESSIONAL ENGINEER 3797 OREGON MAY 6, 1969 ELDEN E. BREEDLOVE

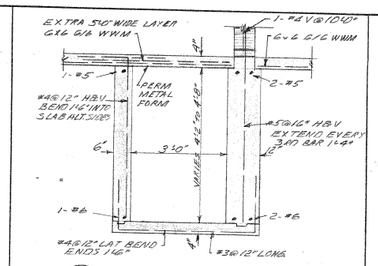
COOPER & ROSE & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS
PORTLAND OREGON



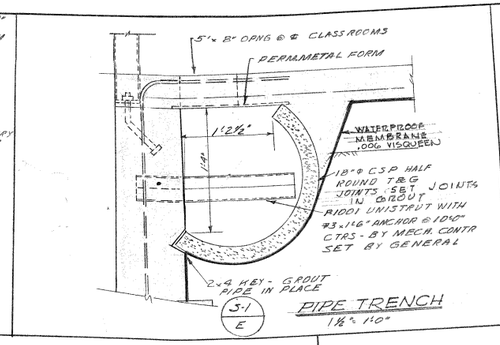
S-1/B SECTION
½" = 1'-0"



S-1/C ENTRANCE STAIRS
½" = 1'-0"



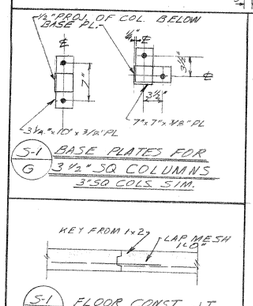
S-1/D PIPE TUNNEL
½" = 1'-0"



S-1/E PIPE TRENCH
1½" = 1'-0"

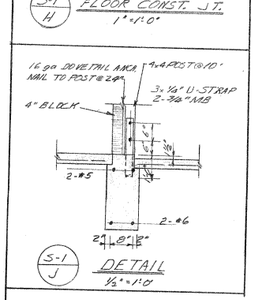
GENERAL NOTES

1. Soil pressure assumed 2000 PSF L.L. + D.L.
2. Elevations shown on foundation plan are maximum elevations to bottom of footings. Footings to rest on firm natural undisturbed soil, Notify Architect if other conditions are found.
3. Verify all openings in floors on Arch., Mech., and Elec. plans. See Arch. plans for general details and dimensions not shown. Contractor to verify and check all dimensions and conditions on job.
4. Design Loads: Roof 25 PSF, Floor 50 PSF L.L., Wind 15 PSF. Seismic: Zone II U.B.C.
5. No excavation shall be made below any footing closer than a one to one slope to the bottom of same. Backfill all pipe trench excavations below footings with lean concrete to bottom of footing.
6. For construction joints (C.J.) not otherwise shown see Specifications.
7. Stone concrete to be 2500 PSI and 2000 PSI for slabs on grade at 28 days ± 15% per test cylinder.
8. All reinforcing steel to be intermediate grade deformed bars ASTM Spec. A-15-57T conforming to ASTM A-305-56T, f_s = 20,000 PSI, det., fab., and place per ACI Manual 315-57 and Code 318-56.
9. Set main reinforcing steel 2" from forms for dirt side of formed walls, 3" from dirt for concrete poured against earth.
10. Provide 2'-0" x 2'-0" corner bars for all horizontal wall steel at all corners and intersections. Bar lap 27 x diameter or 2'-0" min.
11. All structural steel ASTM A7-56T, f_s = 20,000 PSI, detail and fabricate to AISC Spec. All welding to conform to AWS Standards.
12. All welding to be done by certified welders to AWS Standards.
13. All structural steel ASTM A53-55T.
14. All pipe columns to conform to ASTM A245-52T, or A246-52T Class C steel detailed and fabricated to AISI Standards for light gage steel construction.
15. All light gage steel columns to be of ASTM A245-52T, or A246-52T Class C steel detailed and fabricated to AISI Standards for light gage steel construction.
16. Bulb tees to be hot rolled sections of 50,000 PSI yield steel as manufactured by H.K. Porter Company.
17. Concrete block shall be light weight units conforming to ASTM Spec. C-90-52 Grade A units with mortar conforming to U.B.C. Type A.
18. Reinforce all block walls as shown with a min. of 3/16 diameter trussed wire reinforcing every third course and 2 - #4 in cont. bond beam at the top.
19. Unless noted otherwise, reinforce all openings in block walls with a minimum of 2 - #6 in grouted lintel bond beam over opening, bars opening ≮ 2'-0"; 2 - #4 in fully grouted cell at jambs, bars opening height ≮ 2'-0" above and below.
20. All grout for reinforced block walls to be 2000 PSI concrete made with 3/8" minus aggregate.
21. Trussed rod reinforcing for block walls to conform to ASTM A-82-34.
22. All laminated beams to be f = 2200 in accordance with WCLA Spec. "Structural Glued Laminated Douglas Fir Lumber", unless noted otherwise. Use casein glue unless marked waterproof (WP). See Arch. for finish details.
23. All sawn lumber to be Construction Grade D.F. per WCLA Rules #15.
24. All plywood to be Interior C.D. per DFPA grading rules.
25. All boltheads and nuts bearing on wood to be provided with common cut washers.
26. Roof deck to be tectum of size and thickness noted; grouted with 2000 PSI grout to form a smooth surface.

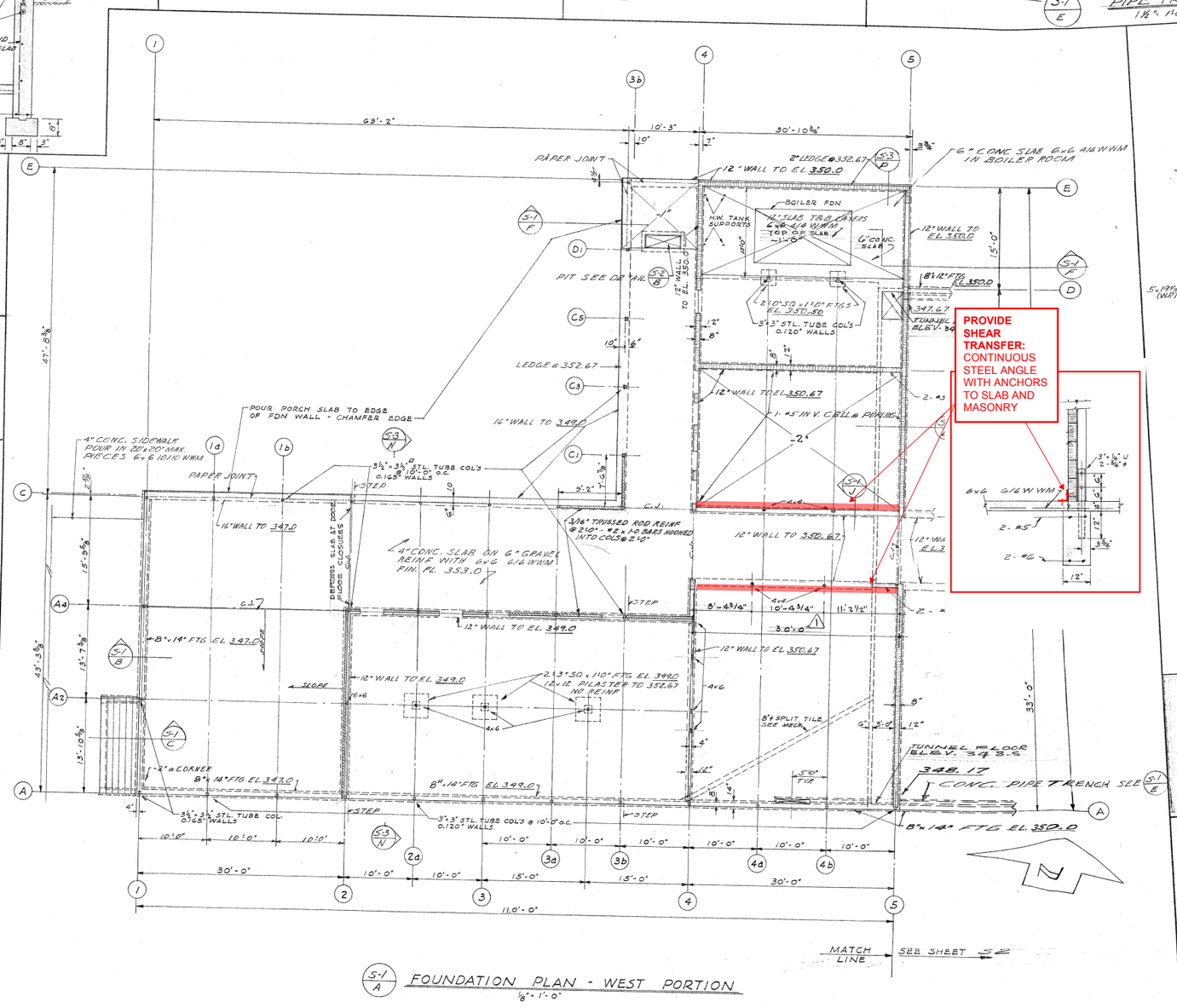


S-1/G BASE PLATES FOR 3½" SQ. COLUMNS
3'50 COLS. SIM.

S-1/H FLOOR CONST. J.T.
1" = 1'-0"

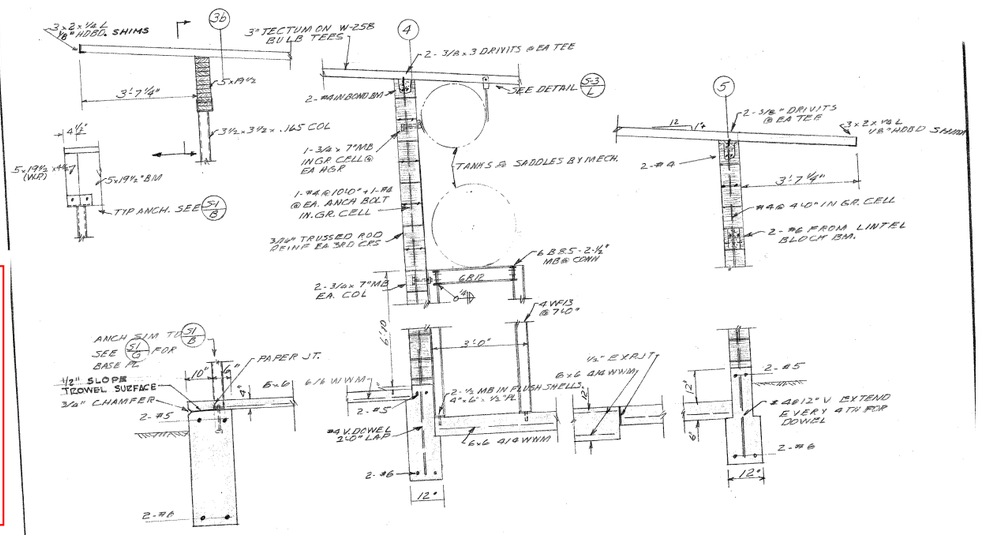


S-1/J DETAIL
½" = 1'-0"



S-1/A FOUNDATION PLAN - WEST PORTION
⅛" = 1'-0"

PROVIDE SHEAR TRANSFER: CONTINUOUS STEEL ANGLE WITH ANCHORS TO SLAB AND MASONRY



S-1/F BOILER ROOM
½" = 1'-0"

NAILING SCHEDULE

Bulb Tees to Beam	3"	2- 20d
Tectum to Beams	2½"	30d at 16" 20d at 16"
Studs to Plates		2- 16d thru nail or 3- 16d toenails
Plate Intersections		2- 16d
Double Plates, Stud Sets		16d at 24"
2" Firestops or Blocking		2- 16d each end
2" Scabs to Beams		4- 16d to Beam & 4 to Studs
Stud Walls to Block		16 Ga. anchors at 24" or 5/8 x 8" AB at 4'-0"

REGISTERED PROFESSIONAL ENGINEER 3125 OREGON NOV. 8, 1961 DICK W. EBELING

REGISTERED PROFESSIONAL ENGINEER 1861 OREGON SEPT. 1, 1961 ROWLAND S. ROSE

COOPER & ROSE & ASSOCIATES

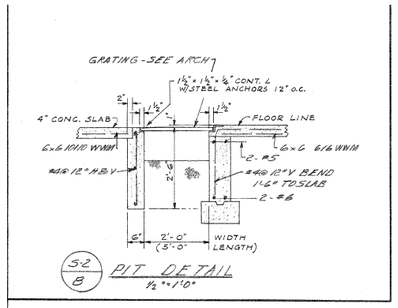
FOUNDATION PLAN (WEST PORTION)

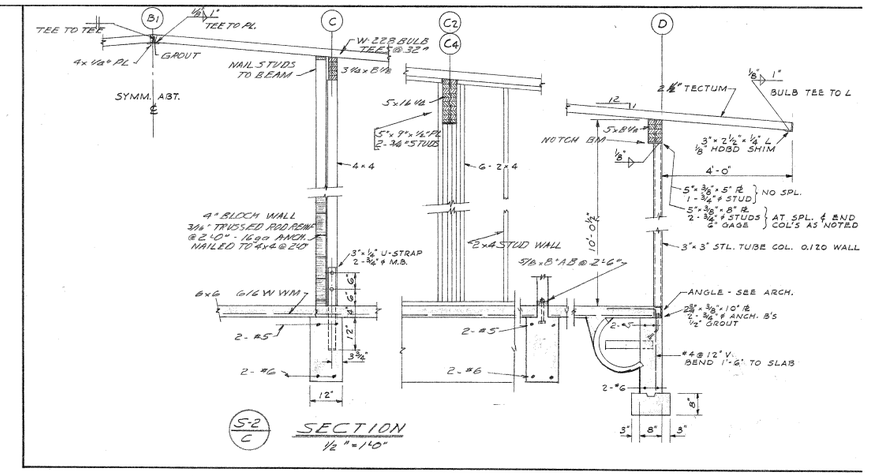
REVISIONS		
REV	DESCRIPTION	DATE
1	ADDED DIMENSIONS IN CLASS RM.	2 SEPT. 99 E.J.

RALEIGH PARK ELEMENTARY SCHOOL
FOR
RALEIGH SCHOOL DISTRICT №95
WASHINGTON COUNTY, OREGON

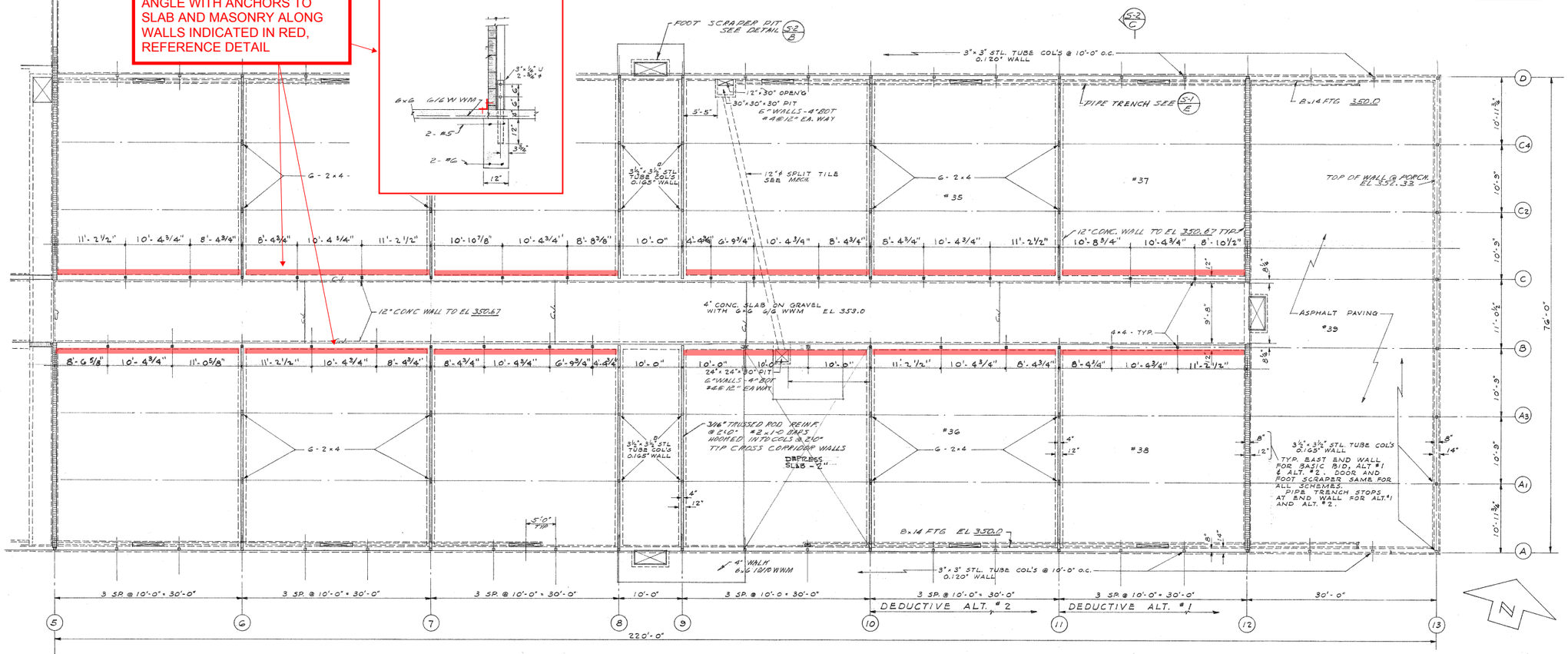
MAX P. WILLIAMS & ROBERT B. MARTIN A.I.A. ARCHITECTS
1919 S.W. 12TH AVENUE
PORTLAND 1, OREGON
CA. 2-9603

DRAWN BY	APPROVED FOR OWNER	FILE NO.	SHEET
DNE S.W.		26	S-1





PROVIDE COMPLETE LOAD PATH:
ADD CONTINUOUS STEEL ANGLE WITH ANCHORS TO SLAB AND MASONRY ALONG WALLS INDICATED IN RED, REFERENCE DETAIL



SEE SHEET S-1 MATCH LINE

S-2 A FOUNDATION PLAN - EAST PORTION
⅛" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER 2128 OREGON NOV 9 1966 DICK W. EBELING

REGISTERED PROFESSIONAL ENGINEER 1641 OREGON JAN 14 1966 ROWLAND S. ROSE

COOPER & ROSE & ASSOCIATES CONSULTING STRUCTURAL ENGINEERS PORTLAND OREGON

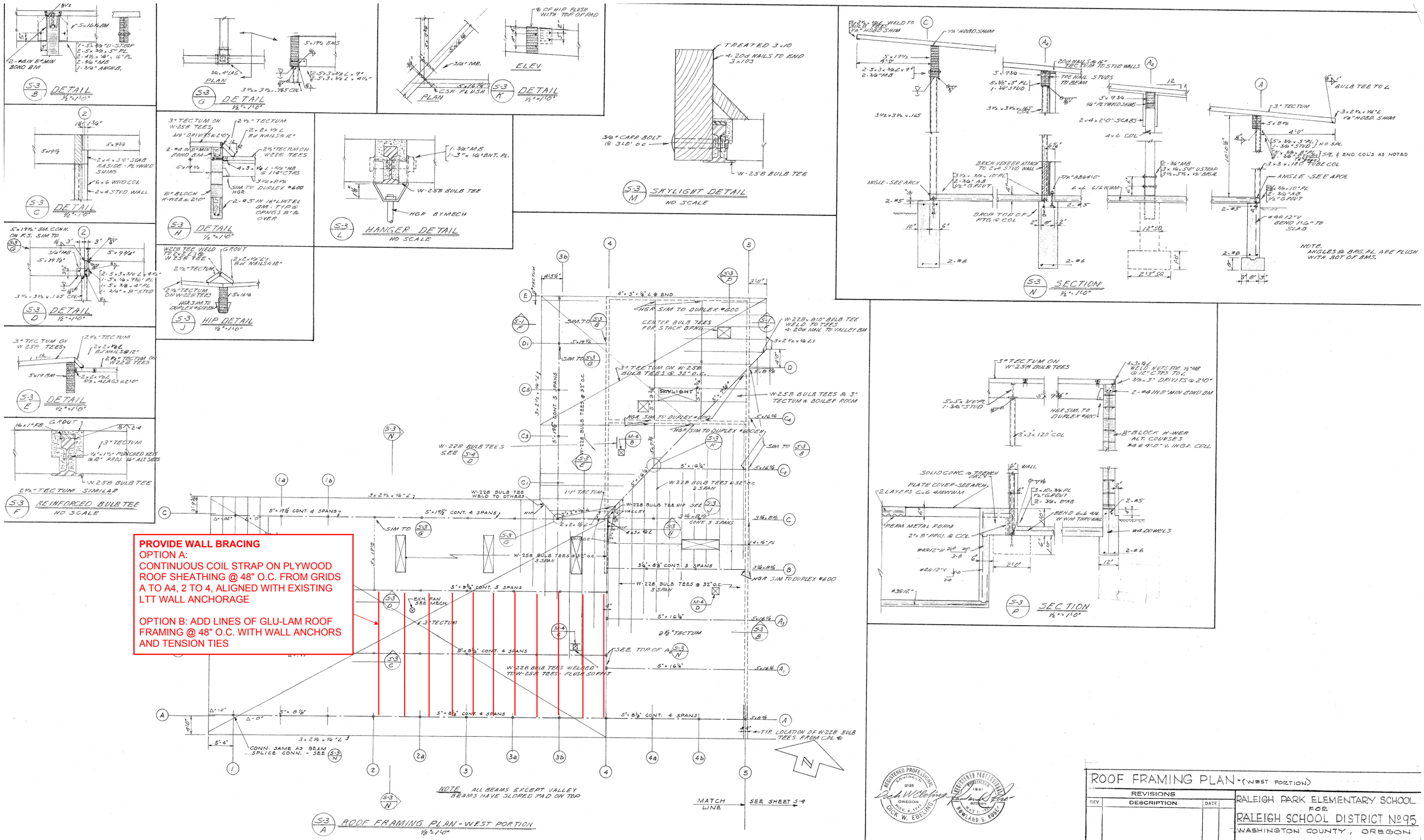
FOUNDATION PLAN (EAST PORTION)

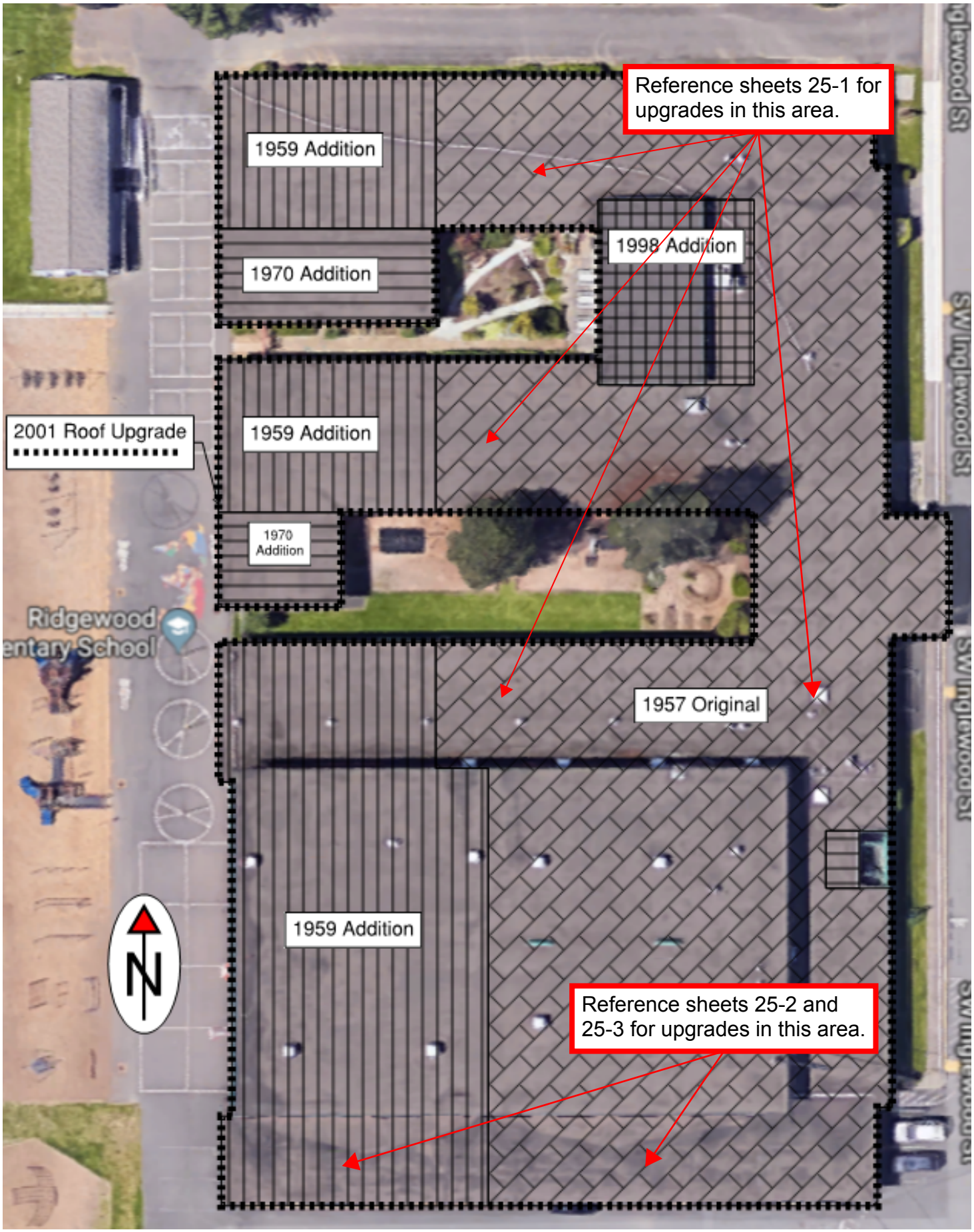
REVISIONS			
REV	DESCRIPTION	DATE	
1	ADDED DIMENSIONS LOCATING WOOD COLS. IN CORR. WALL	2 SEPT. 59	E.J.

RALEIGH PARK ELEMENTARY SCHOOL
FOR
RALEIGH SCHOOL DISTRICT №95
WASHINGTON COUNTY, OREGON

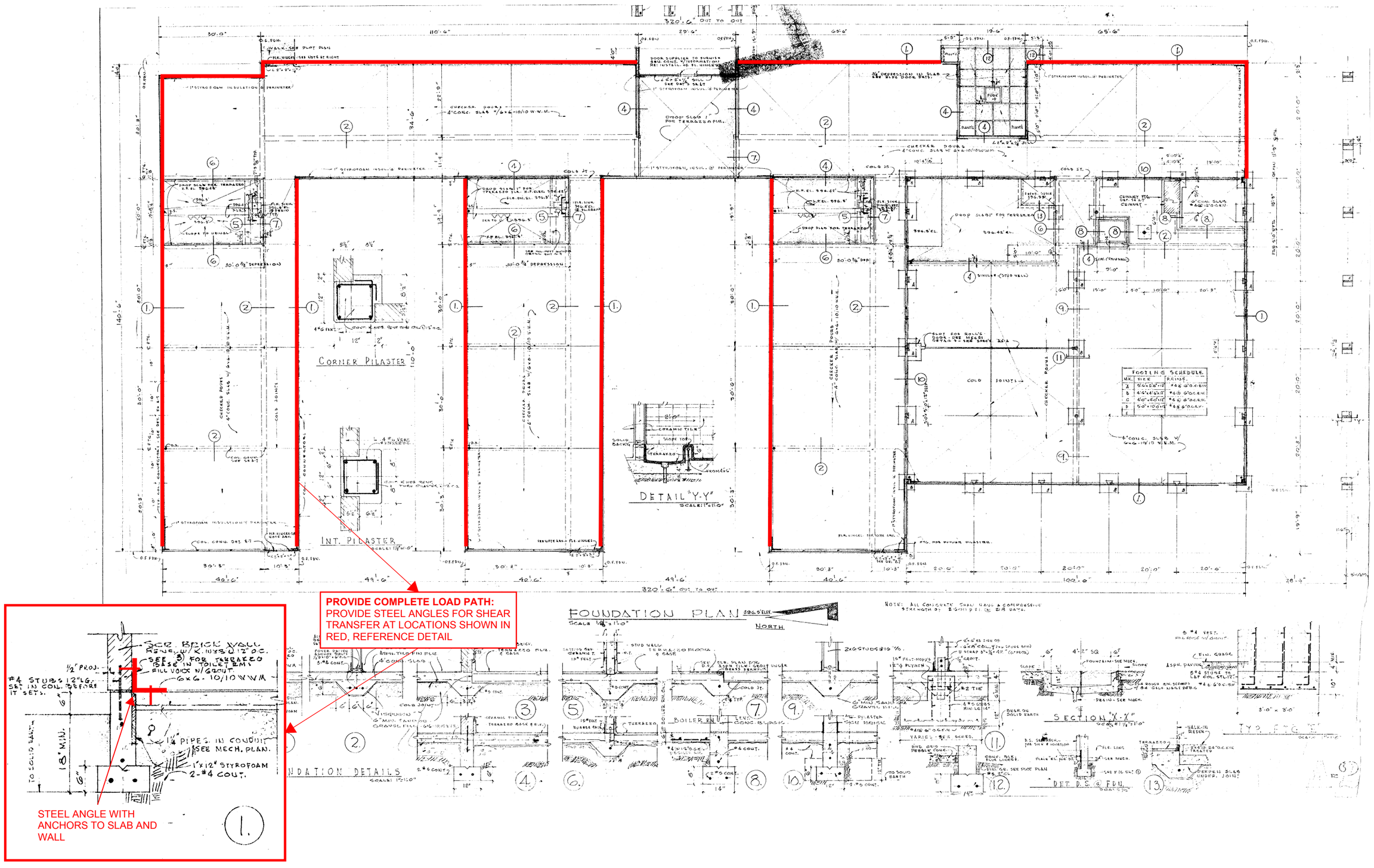
MAX P. WILLIAMS & ROBERT B. MARTIN A I A ARCHITECTS
1919 S. W. 12TH AVENUE
PORTLAND 1, OREGON CA. 2-0303

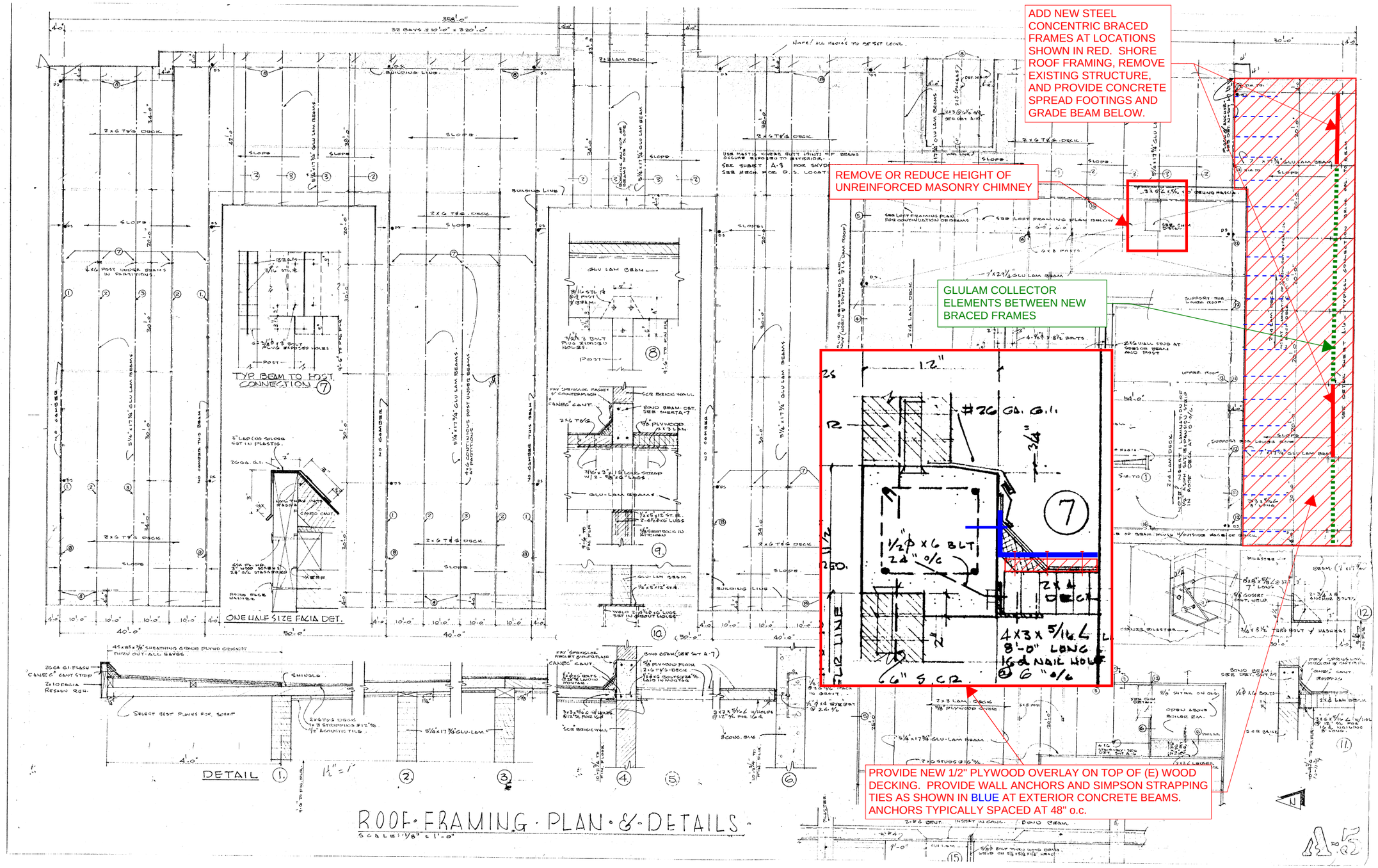
DRAWN BY	APPROVED FOR OWNER	FILE NO.	SHEET NO.
DWB BW		26	S-2
CHECKED BY			

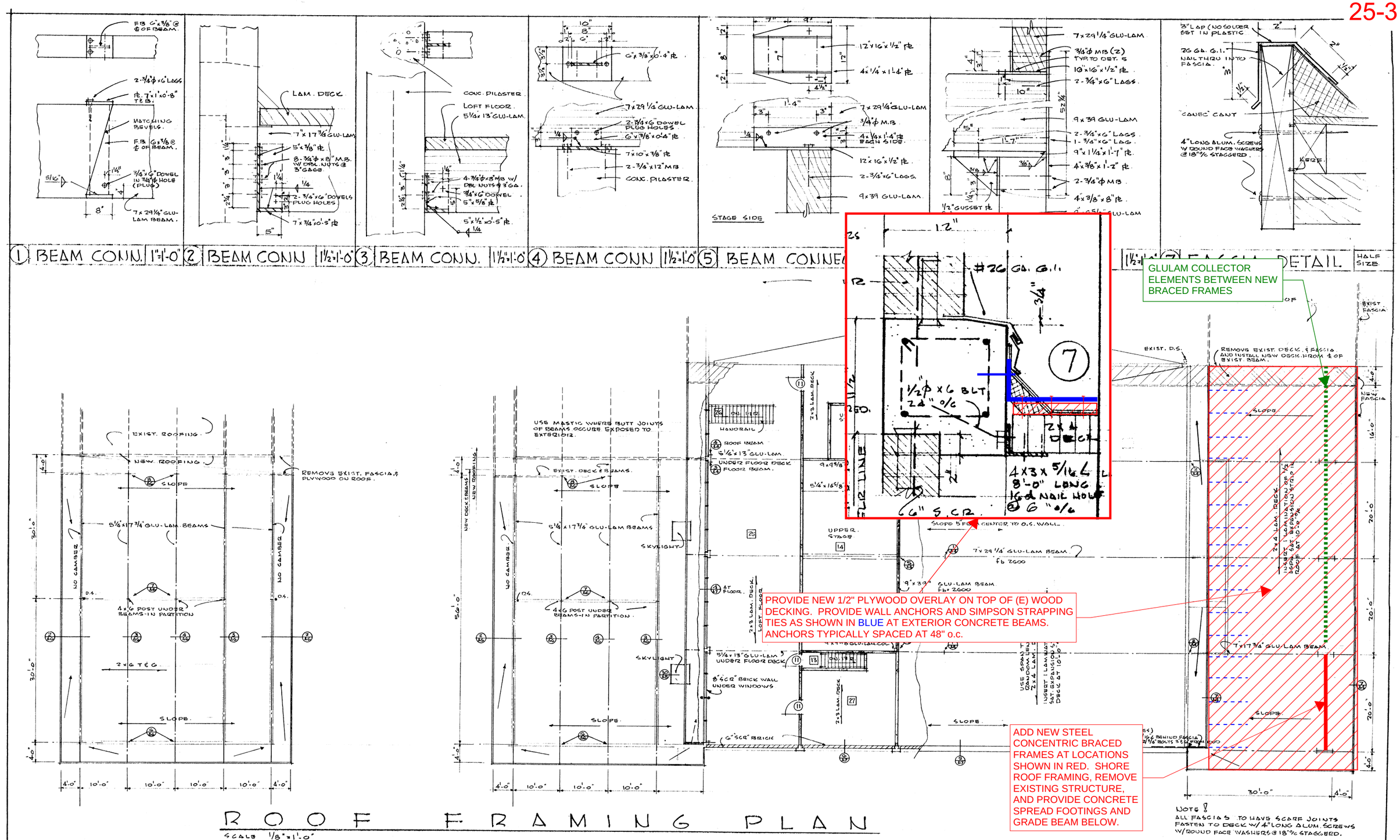

S-3 B DETAIL 1/2"=1'-0"
S-3 G DETAIL 1/2"=1'-0"
S-3 K DETAIL 1/2"=1'-0"
S-3 C DETAIL 1/2"=1'-0"
S-3 H DETAIL 1/2"=1'-0"
S-3 L HANGER DETAIL NO SCALE
S-3 M SKYLIGHT DETAIL NO SCALE
S-3 N SECTION 1/2"=1'-0"
S-3 D DETAIL 1/2"=1'-0"
S-3 J HIP DETAIL 1/2"=1'-0"
S-3 E DETAIL 1/2"=1'-0"
S-3 F REINFORCED BULB TEE NO SCALE
S-3 P SECTION 1/2"=1'-0"
S-3 A ROOF FRAMING PLAN - WEST PORTION 1/8"=1'-0"
NOTE ALL BEAMS EXCEPT VALLEY BEAMS HAVE SLOPED PAD ON TOP
MATCH LINE SEE SHEET S-4
PROVIDE WALL BRACING
OPTION A:
CONTINUOUS COIL STRAP ON PLYWOOD ROOF SHEATHING @ 48" O.C. FROM GRIDS A TO A4, 2 TO 4, ALIGNED WITH EXISTING LTT WALL ANCHORAGE
OPTION B: ADD LINES OF GLU-LAM ROOF FRAMING @ 48" O.C. WITH WALL ANCHORS AND TENSION TIES
ROOF FRAMING PLAN - (WEST PORTION)
REVISIONS
REV DESCRIPTION DATE
RALEIGH PARK ELEMENTARY SCHOOL
FOR
RALEIGH SCHOOL DISTRICT No 95
WASHINGTON COUNTY, OREGON
MAX P. WILLIAMS & ROBERT B. MARTIN A I A ARCHITECTS
1919 S. W. 12TH AVENUE
PORTLAND 1, OREGON
CA. 2-9603
DRAWN BY APPROVED FOR OWNER FILE NO. SHEET NO.
COOPER & ROSE & ASSOCIATES
CONSULTING STRUCTURAL ENGINEERS

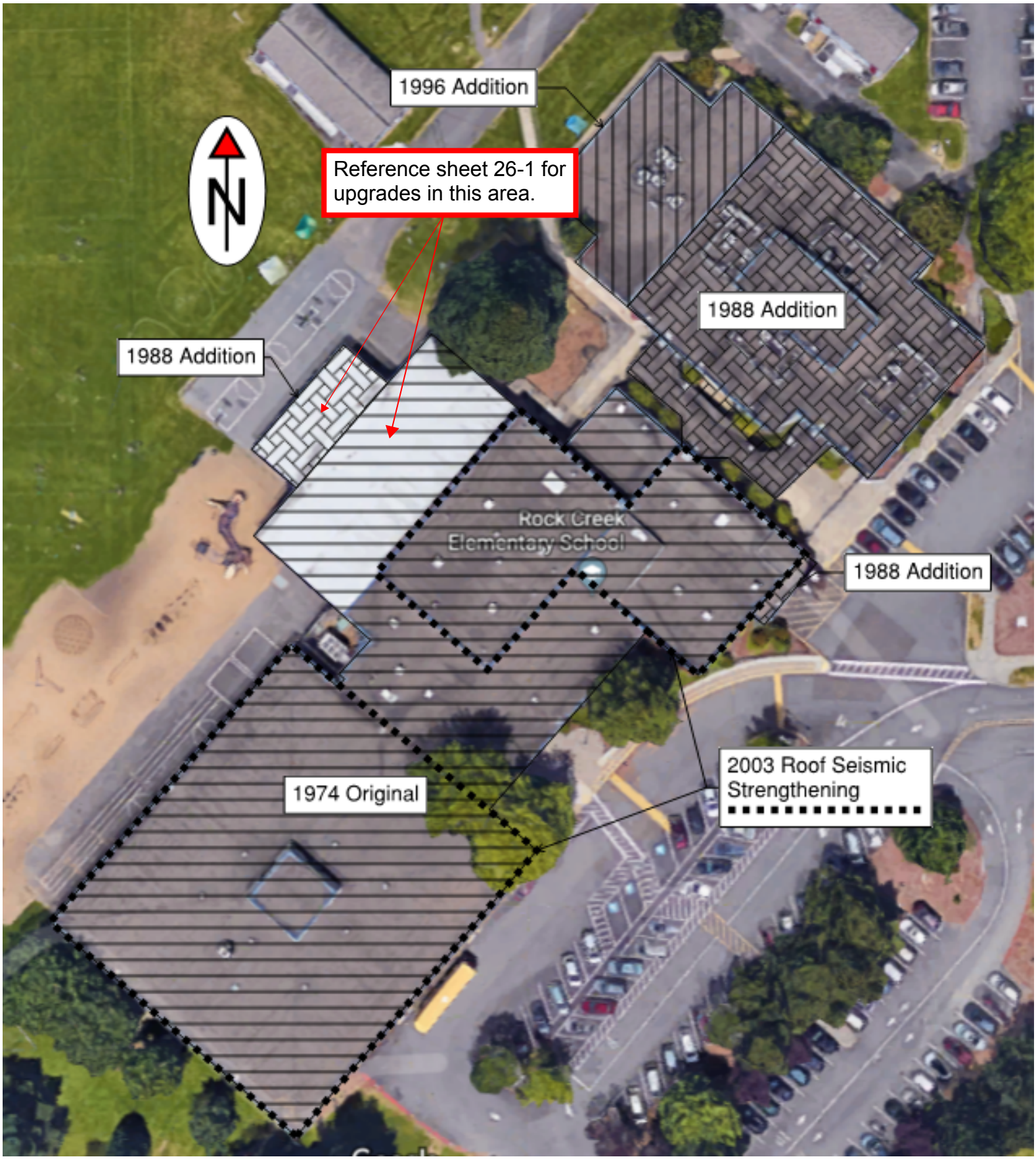


25 - Ridgewood Elementary

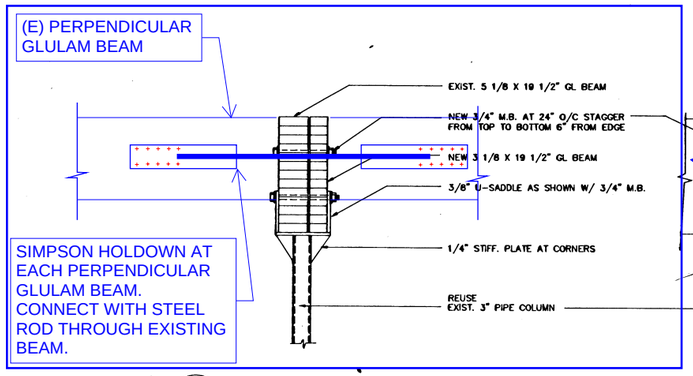

PROVIDE COMPLETE LOAD PATH:
PROVIDE STEEL ANGLES FOR SHEAR TRANSFER AT LOCATIONS SHOWN IN RED, REFERENCE DETAIL
STEEL ANGLE WITH ANCHORS TO SLAB AND WALL
FOUNDATION PLAN
CORNER PILASTER
INT. PILASTER
DETAIL "Y-Y"
SECTION "X-X"
FOOTING SCHEDULE
NORTH


ADD NEW STEEL CONCENTRIC BRACED FRAMES AT LOCATIONS SHOWN IN RED. SHORE ROOF FRAMING, REMOVE EXISTING STRUCTURE, AND PROVIDE CONCRETE SPREAD FOOTINGS AND GRADE BEAM BELOW.
REMOVE OR REDUCE HEIGHT OF UNREINFORCED MASONRY CHIMNEY
GLULAM COLLECTOR ELEMENTS BETWEEN NEW BRACED FRAMES
PROVIDE NEW 1/2" PLYWOOD OVERLAY ON TOP OF (E) WOOD DECKING. PROVIDE WALL ANCHORS AND SIMPSON STRAPPING TIES AS SHOWN IN BLUE AT EXTERIOR CONCRETE BEAMS. ANCHORS TYPICALLY SPACED AT 48" o.c.
TYP. BEAM TO POST CONNECTION
ONE HALF SIZE FACIA DET.
DETAIL
ROOF FRAMING PLAN & DETAILS
SCALE: 1/8" = 1'-0"

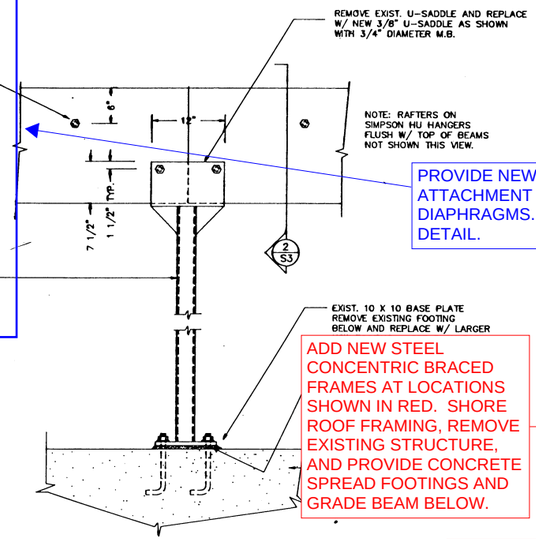

1 BEAM CONN. 1"=1'-0"
2 BEAM CONN 1½"=1'-0"
3 BEAM CONN. 1½"=1'-0"
4 BEAM CONN 1½"=1'-0"
5 BEAM CONNE
DETAIL HALF SIZE
GLULAM COLLECTOR ELEMENTS BETWEEN NEW BRACED FRAMES
PROVIDE NEW 1/2" PLYWOOD OVERLAY ON TOP OF (E) WOOD DECKING. PROVIDE WALL ANCHORS AND SIMPSON STRAPPING TIES AS SHOWN IN BLUE AT EXTERIOR CONCRETE BEAMS. ANCHORS TYPICALLY SPACED AT 48" o.c.
ADD NEW STEEL CONCENTRIC BRACED FRAMES AT LOCATIONS SHOWN IN RED. SHORE ROOF FRAMING, REMOVE EXISTING STRUCTURE, AND PROVIDE CONCRETE SPREAD FOOTINGS AND GRADE BEAM BELOW.
ROOF FRAMING PLAN
SCALE 1/8"=1'-0"
NOTE!
ALL FASCIAS TO HAVE SCARF JOINTS FASTEN TO DECK W/ 4" LONG ALUM. SCREWS W/ROUND FACE WASHERS @ 18"% STAGGERED.
REGISTERED PROFESSIONAL ENGINEER
FRANCIS E. HONEY
ROOF FRAMING PLAN
SHEET No A-4
66876
9-22-59



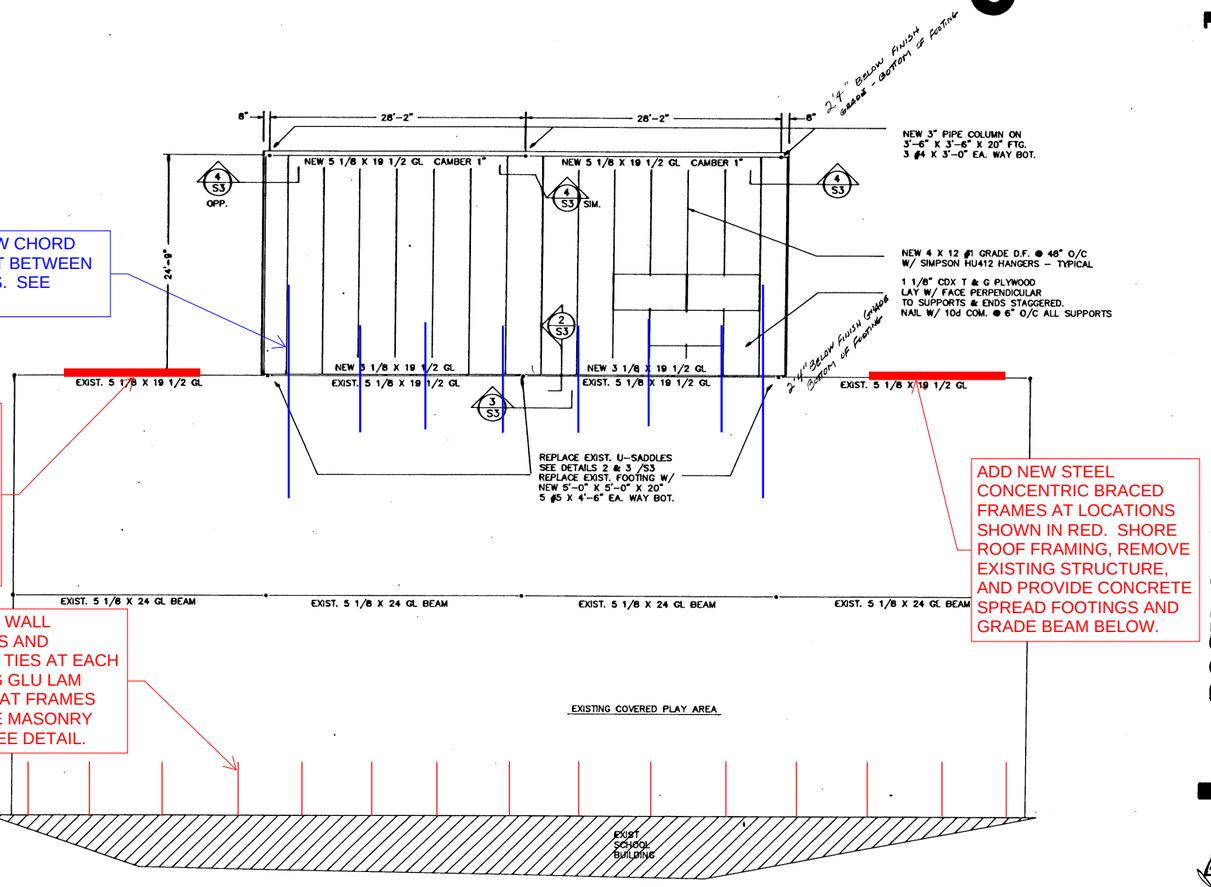
26 - Rock Creek Elementary



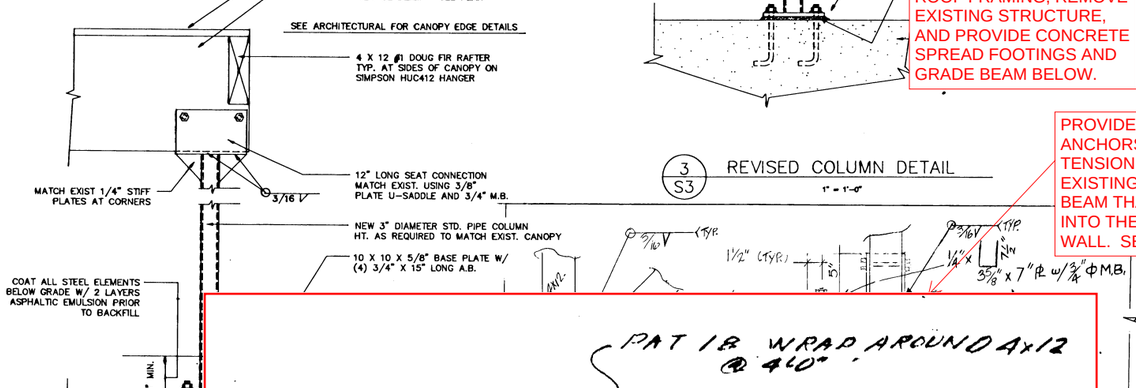
2/S3 — 1" = 1'-0"



3/S3 REVISED COLUMN DETAIL — 1" = 1'-0"



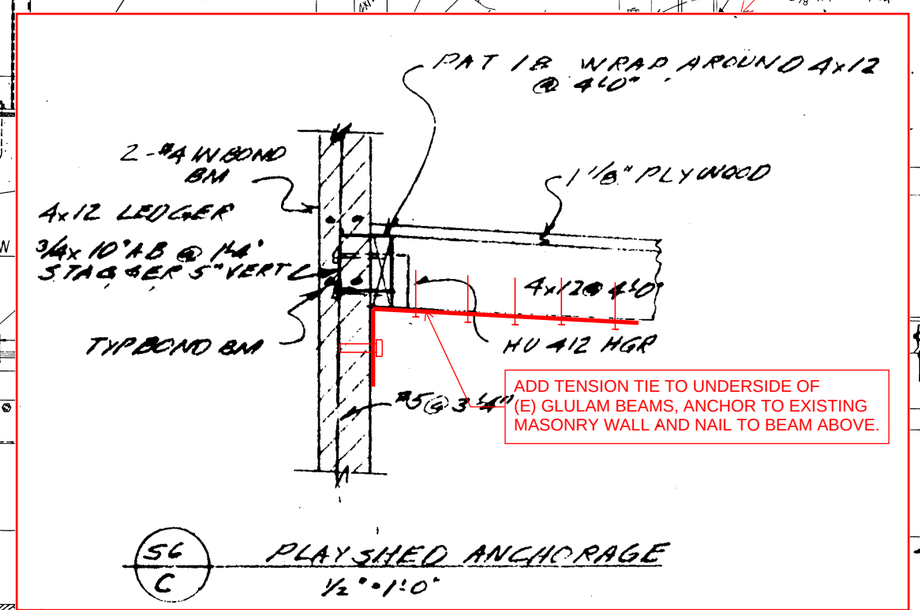
1/S3 COVERED PLAY AREA — 1/8" = 1'-0"



4/S3 NEW

5/S3 — 1" = 1'-0"

6/S3 CANOPY SECTION — 1" = 1'-0"



SG/C PLAYSHED ANCHORAGE — 1/2" = 1'-0"

GENERAL STRUCTURAL NOTES

THESE NOTES SHALL STIPULATE THE MINIMUM STANDARDS OF CONSTRUCTION, AND THE DRAWINGS SHALL GOVERN OVER THE NOTES IN ALL MATTERS SPECIFICALLY STATED. BUILDING MANUFACTURER SHALL BE RESPONSIBLE TO DESIGN THE MODULAR COMPONENTS OF THE COMPLETED BUILDING TO SUSTAIN ALL LOADS IMPOSED BY HANDLING, TRANSPORTATION AND ERECTION. DETAIL OF CONSTRUCTION SHOWN REPRESENT A SYSTEM WHICH IS ACCEPTABLE TO THE OWNER AND ARCHITECT. ALTERNATE MEANS OF CONSTRUCTION MAY BE PROPOSED BY THE MANUFACTURER IN ACCORDANCE WITH SECTION 01600 "MATERIALS AND EQUIPMENT". VERIFY DIMENSIONS AND EXISTING CONDITIONS, AND NOTIFY ARCHITECT OF DISCREPANCIES BEFORE PROCEEDING. ALL WORK SHALL CONFORM TO THE LATEST ADOPTED EDITION OF THE STATE OF OREGON STRUCTURAL SPECIALTY CODE AND FIRE AND LIFE SAFETY REGULATIONS.

DESIGN LOADS:
FLOOR LL = 60 PSF CORRIDORS, STAIRS & EXITS LL = 100 PSF
SNOW LOAD = 25 PSF WIND LOAD = 80 MPH ZONE EXPOSURE B
SEISMIC UBC ZONE 2 MECHANICAL LOADS = SEE MECHANICAL DWGS.
FOOTING DESIGN SOIL PRESSURE = 1500 PSF

FOUNDATIONS:
FOOTINGS SHALL BEAR ON FIRM UNDISTURBED SOIL A MINIMUM OF 24 INCHES BELOW ORIGINAL AND FINAL GRADE. NOTIFY IF SOIL CONDITIONS DO NOT APPEAR SATISFACTORY.

DO NOT EXCAVATE CLOSER THAN 1 1/2 TO 1 SLOPE BELOW BOTTOM OF FOOTINGS. BACKFILL ALL PIPE TRENCH AND OTHER EXCAVATIONS BELOW FOOTINGS WITH COMPACTED CRUSHED ROCK.

CONCRETE:
THE ACI STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE FOR BUILDINGS ACI-301 SHALL BE FOLLOWED EXCEPT ITEMS SPECIFICALLY STATED OTHERWISE.

MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS SHALL BE: 3000 PSI FOR WALLS, SLABS AND FOOTINGS.
MAXIMUM SLUMP SHALL BE 4 INCHES.

CONCRETE REINFORCING STEEL:
REBAR SHALL CONFORM TO ASTM A-615 GRADE 40. WELDED WIRE MESH SHALL CONFORM TO ASTM A-185. PLACE AND SECURE ALL BARS PER ACI STANDARDS.

LAP SPLICE ALL CONTINUOUS BARS A MINIMUM OF 30 DIAMETERS, OR AS NOTED ON DRAWINGS. DOUBLE BARS IN ALL WALLS AROUND OPENINGS. PROVIDE 2'-0" X 2'-0" CORNER BARS OF SIZE AND SPACING TO MATCH HORIZONTAL BARS AT ALL INTERSECTIONS OF WALLS AND FOOTINGS. PROVIDE FOOTING DOWELS OF SIZE AND SPACING TO MATCH VERTICAL BARS IN WALLS AND COLUMNS.

STRUCTURAL STEEL:
STRUCTURAL BEAMS AND PLATES SHALL CONFORM TO ASTM A-36. PIPE COLUMNS SHALL CONFORM TO ASTM A-53. STEEL TUBES SHALL CONFORM TO ASTM A-500 GRADE 46 KSI. BOLTS SHALL CONFORM TO ASTM A-307 AND SHALL HAVE STANDARD CUT WASHERS WHERE BEARING ON WOOD (INCLUDING FOUNDATION ANCHOR BOLTS). DETAIL, FABRICATE AND WELD ALL STEEL MEMBERS ACCORDING TO AISC STANDARDS. PROVIDE ONE SHOP COAT OF PRIMER ON ALL STEEL MEMBERS AFTER FABRICATION.

GLUELAMINATED WOOD MEMBERS:
GLUELAMINATED BEAMS SHALL BE INDUSTRIAL APPEARANCE GRADE DOUGLAS FIR COMPLYING WITH AITC 117-79 DESIGN STANDARD. FIBER STRESS IN BENDING SHALL BE Fb = 2400 PSI FOR BEAMS 15 INCHES AND DEEPER, AND Fb = 2000 PSI FOR BEAMS 15 1/2 INCH DEEP AND LESS. GLUE SHALL BE OF A WATERPROOF TYPE.

WOOD:
LUMBER GRADES SHALL BE AS FOLLOWS, EXCEPT AS NOTED ON DRAWINGS:

JOISTS, RAFTERS & 4" NOM. BEAMS	#2 GRADE DOUG. FIR
POSTS & 4" NOM. BEAMS	#1 GRADE DOUG. FIR
2 X 4 STUDS	STUD GRADE DOUG. FIR
2 X 6 & LARGER STUDS	#2 GRADE DOUG. FIR
BLOCKS, BLOCKING & BRIDGING	#3 GRADE DOUG. FIR
PLATES & SILLS ON CONCRETE	P. T. DOUG. FIR
4 X 12 RAFTERS @ PLAY AREA	#1 GRADE DOUG. FIR

PROVIDE SOLID BLOCKING FOR JOISTS AND RAFTERS AT ALL BEARING WALLS AND BEAMS. PROVIDE BRIDGING AND FIRESTOPPING AS REQUIRED BY CODE.

PLYWOOD WALL, ROOF AND FLOOR SHEATHING TO BE STANDARD GRADE WITH EXTERIOR GLUE. USE EXTERIOR TYPE PLYWOOD FOR EXPOSED LOCATIONS SUCH AS SOFFITS. SEE DRAWINGS FOR INFORMATION ON PLYWOOD INSTALLATION AND NAILING

NAIL ALL MEMBERS WITH MINIMUM NAILING TO CONFORM TO TABLE 025-D OF THE UBC AND INCREASE WHERE INDICATED. FASTENERS AND HANGERS NOTED ON THE DRAWINGS ARE MODEL NUMBERS OF "SIMPSON STRONG-TIE COMPANY, INC." AND MAY BE REPLACED WITH EQUIVALENT MODELS BY OTHER COMPANIES HAVING EQUIVALENT PROPERTIES AND STRENGTHS. INSTALL ALL CONNECTORS IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS WITH NAILING IN ALL AVAILABLE HOLES.

RECORD DRAWINGS

RECORD DRAWING INFORMATION PROVIDED BY GENERAL CONTRACTOR: (PRINZ CONSTRUCTION CORP., PH. 283-5512). ARCHITECT DOES NOT WARRANT ACCURACY OF INFORMATION PROVIDED. DATE: APR. 1990

26-1

ROCK CREEK ELEMENTARY SCHOOL
MODULAR CLASSROOM ADDITION
4125 NW 185th PORTLAND, OREGON 97006

REGISTERED PROFESSIONAL ENGINEER 6278 OREGON JAN 12, 1988 JERRY W. ESTOUP

DULL OLSON WEEKES ARCHITECTS
115 NW First Avenue, Suite 301
Portland, Oregon 97209
503/226-6950

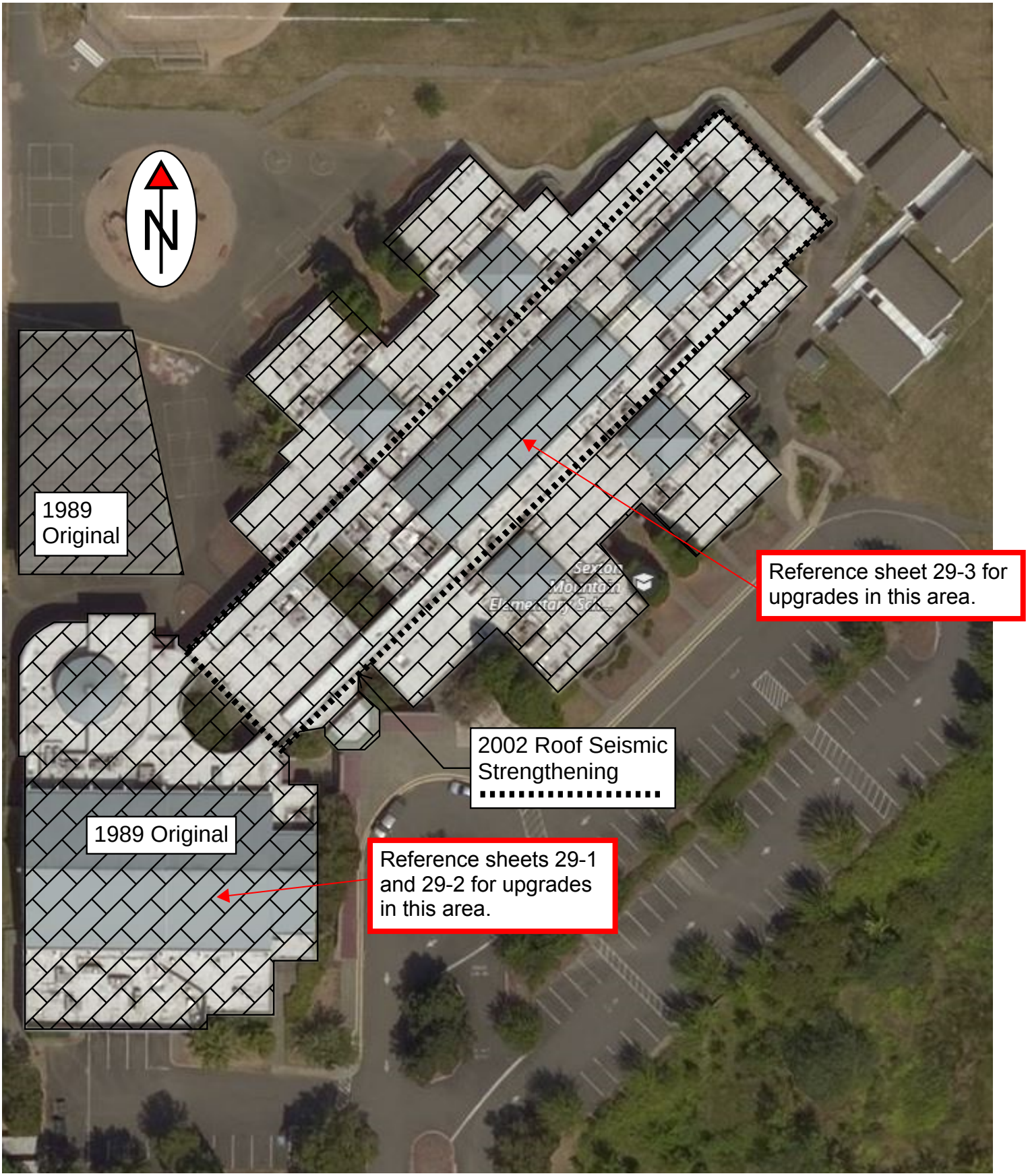
DATE: 8/23/88
JOB #: 8806
DRAWN BY
CHECKED BY
REVISIONS

JAMES G. PIERSON INC.
CONSULTING STRUCTURAL ENGINEERS
408 SW SECOND AVENUE
PORTLAND, OREGON 97204
503/226-1286

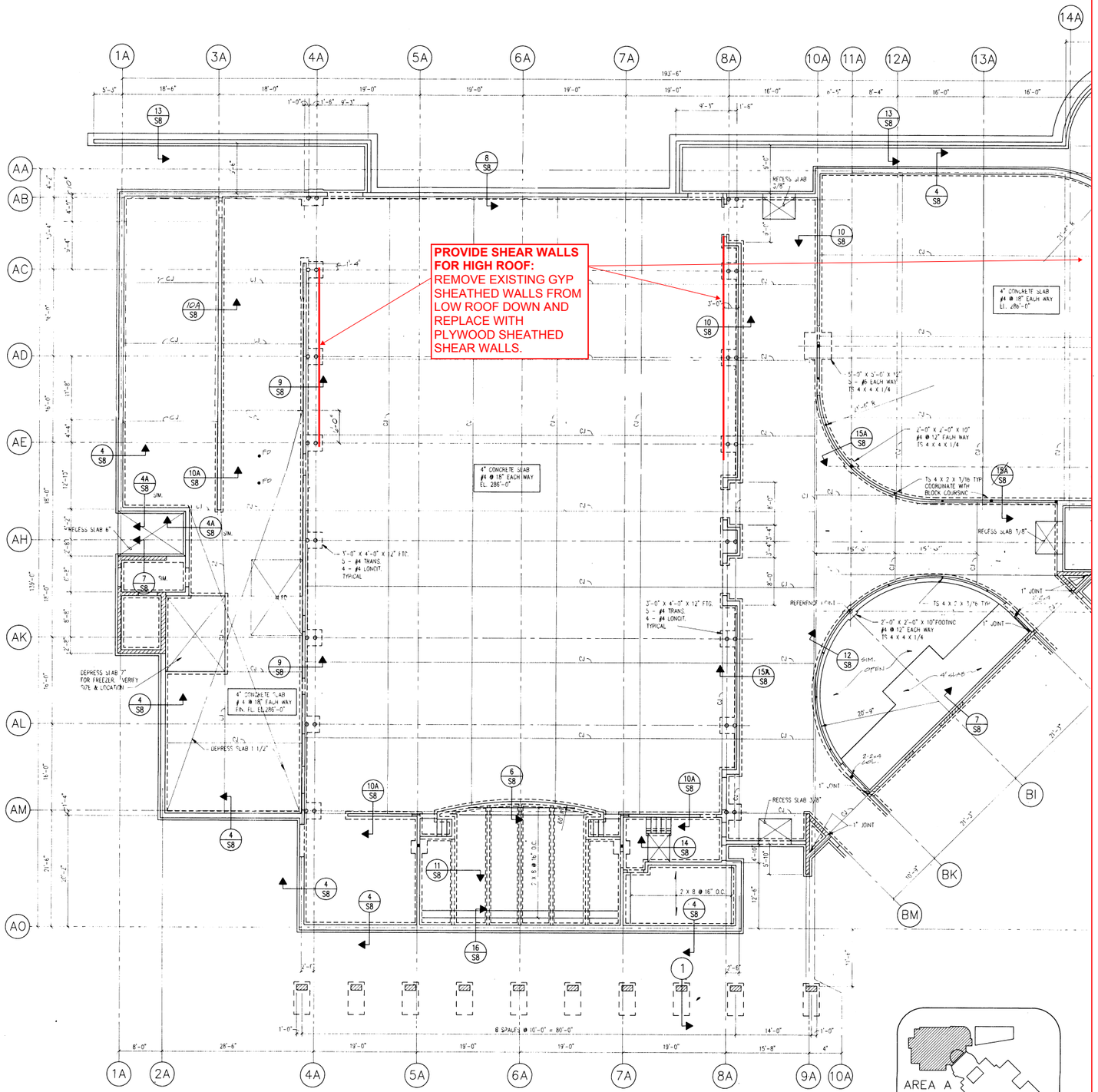
COVERED PLAY ROOF FRAMING PLAN DETAILS

S3

67635



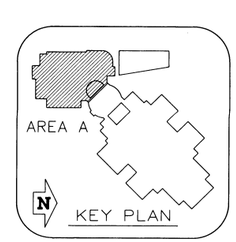
29 - Sexton Mountain

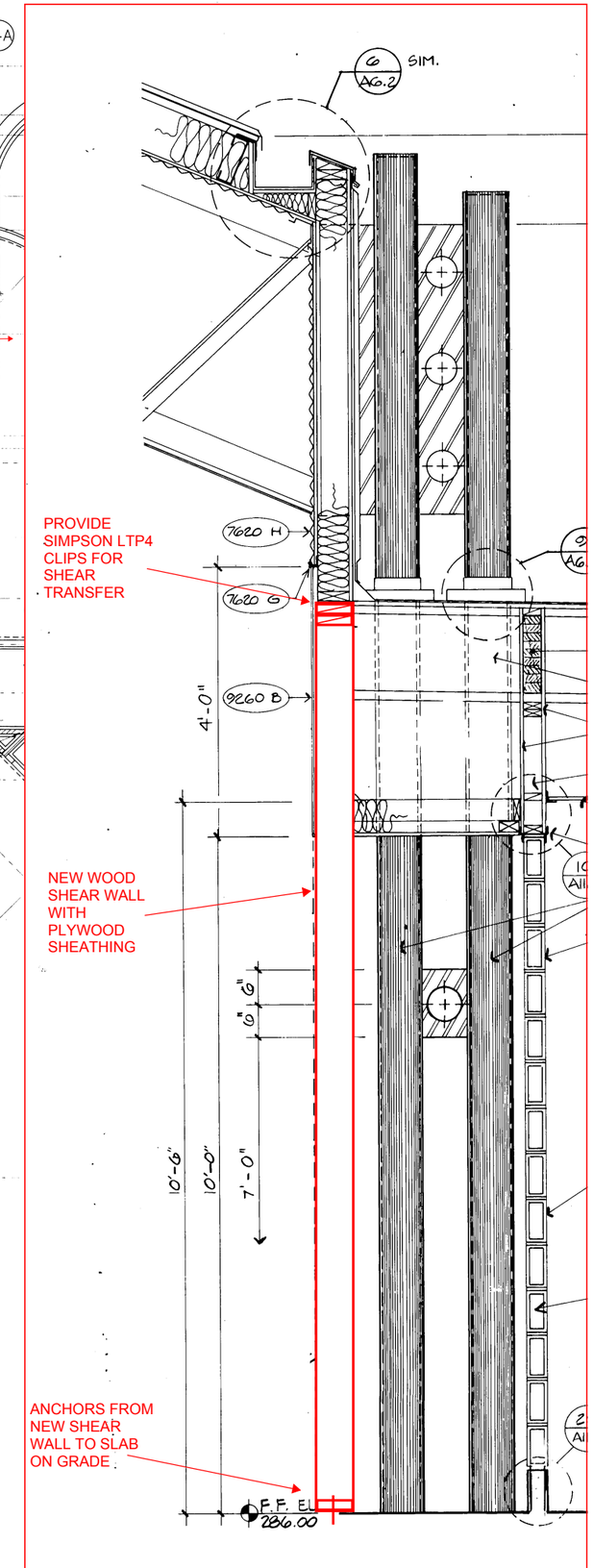


NOTE:
DIMENSIONS TO WOODEN WALLS ARE TO FACE OF STUD. DIMENSIONS TO CMU WALLS ARE TO FACE OF WALL, UNLESS NOTED OTHERWISE.

FOUNDATION PLAN — AREA A

1/8" = 1'-0"





BEAVERTON SCHOOL DISTRICT NO. 48
A NEW ELEMENTARY SCHOOL
SW 155TH AND SATTERBURG ROAD
BEAVERTON, OREGON

MOFFATT NICHOL & BONNEY, INC. ENGINE
PORTLAND

DULL OLSON WEEKES
ARCHITECTS

115 NW First Avenue, Suite 301
Portland, Oregon 97209
503/226-6950

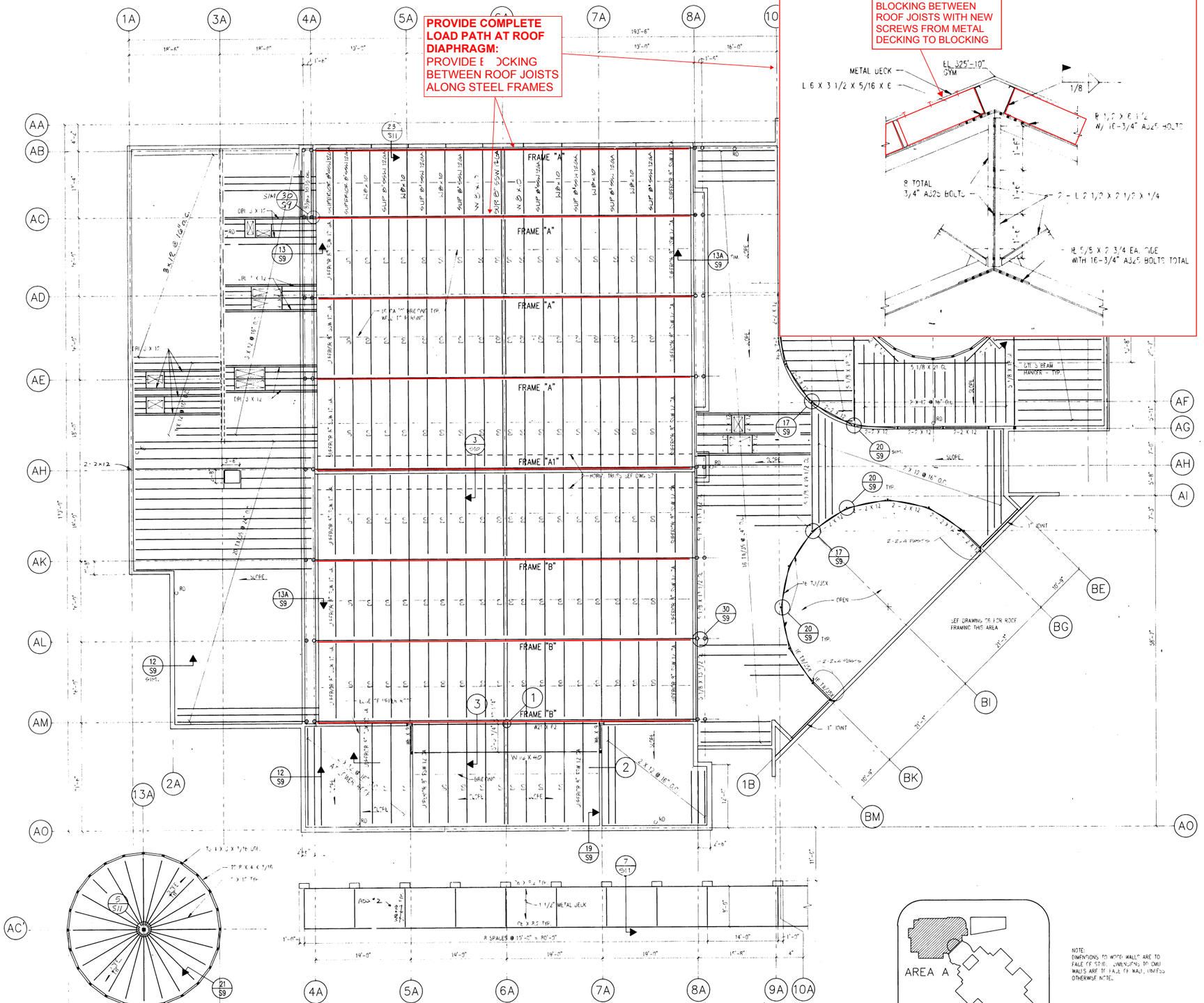
DATE: 8/26/88
JOB # 8635
DRAWN BY L.D. J.H.
CHECKED BY C.S.W.
REVISIONS

S1

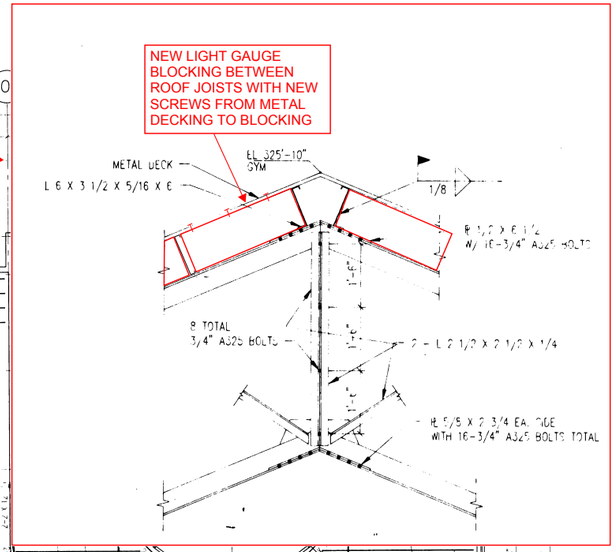
68598

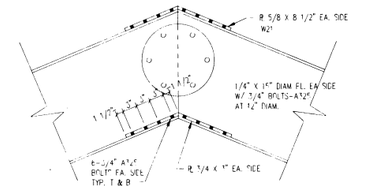
PROVIDE COMPLETE LOAD PATH AT ROOF DIAPHRAGM:
PROVIDE BLOCKING BETWEEN ROOF JOISTS ALONG STEEL FRAMES

NEW LIGHT GAUGE BLOCKING BETWEEN ROOF JOISTS WITH NEW SCREWS FROM METAL DECKING TO BLOCKING

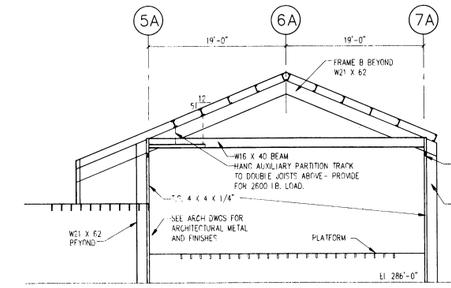


ROOF FRAMING PLAN — AREA A
1/8" = 1'-0"

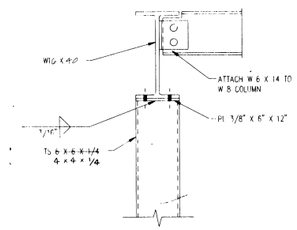




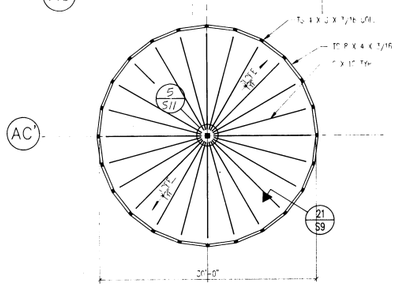
1 DETAIL
1" = 1'-0"



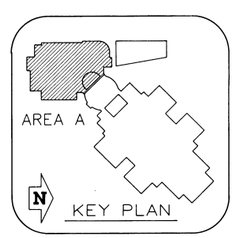
2 SECT. AT BEAM
SCALE



3 SECTION
1 1/2" = 1'-0"



PLAN AT CUPOLA
1/8" = 1'-0"



KEY PLAN

NOTE:
DIMENSIONS TO WOOD WALLS ARE TO FACE OF STUD. DIMENSIONS TO CMU WALLS ARE TO FACE OF WALL, UNLESS OTHERWISE NOTED.

NOTE:
DIMENSIONS TO WOODEN WALLS ARE TO FACE OF STUD. DIMENSIONS TO CMU WALLS ARE TO FACE OF WALL, UNLESS NOTED OTHERWISE.
SEE ARCHITECTURAL DWGS FOR ROOF ELEVATIONS.

BEAVERTON SCHOOL DISTRICT NO. 48
A NEW ELEMENTARY SCHOOL
SW 155TH AND SATTERBURG ROAD
BEAVERTON, OREGON

MOFFATT
NICHOLS
BONNEY, INC. ENGINEERS
PORTLAND

DULL OLSON WEEKES
ARCHITECTS

115 NW First Avenue, Suite 301
Portland, Oregon 97209
503/226-6050

DATE 8/26/88
JOB # 8635
DRAWN BY L.B., J.H.
CHECKED BY C.S.W.
REVISIONS

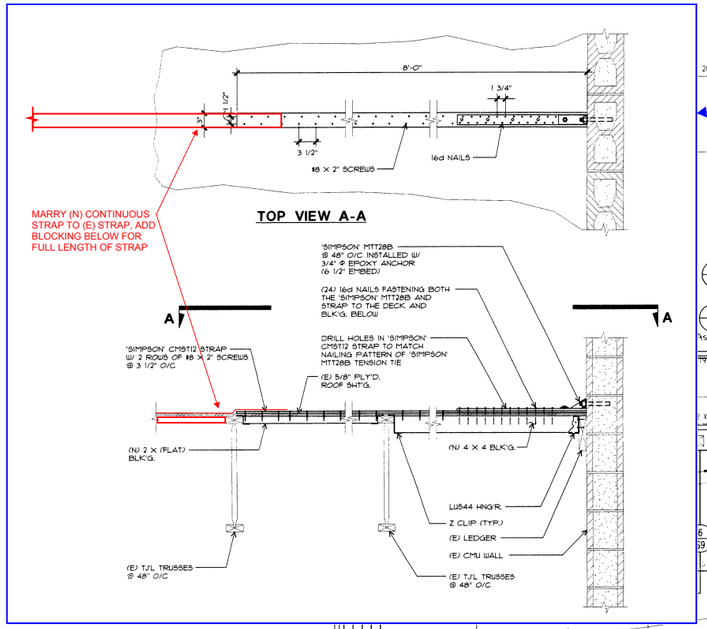
S5

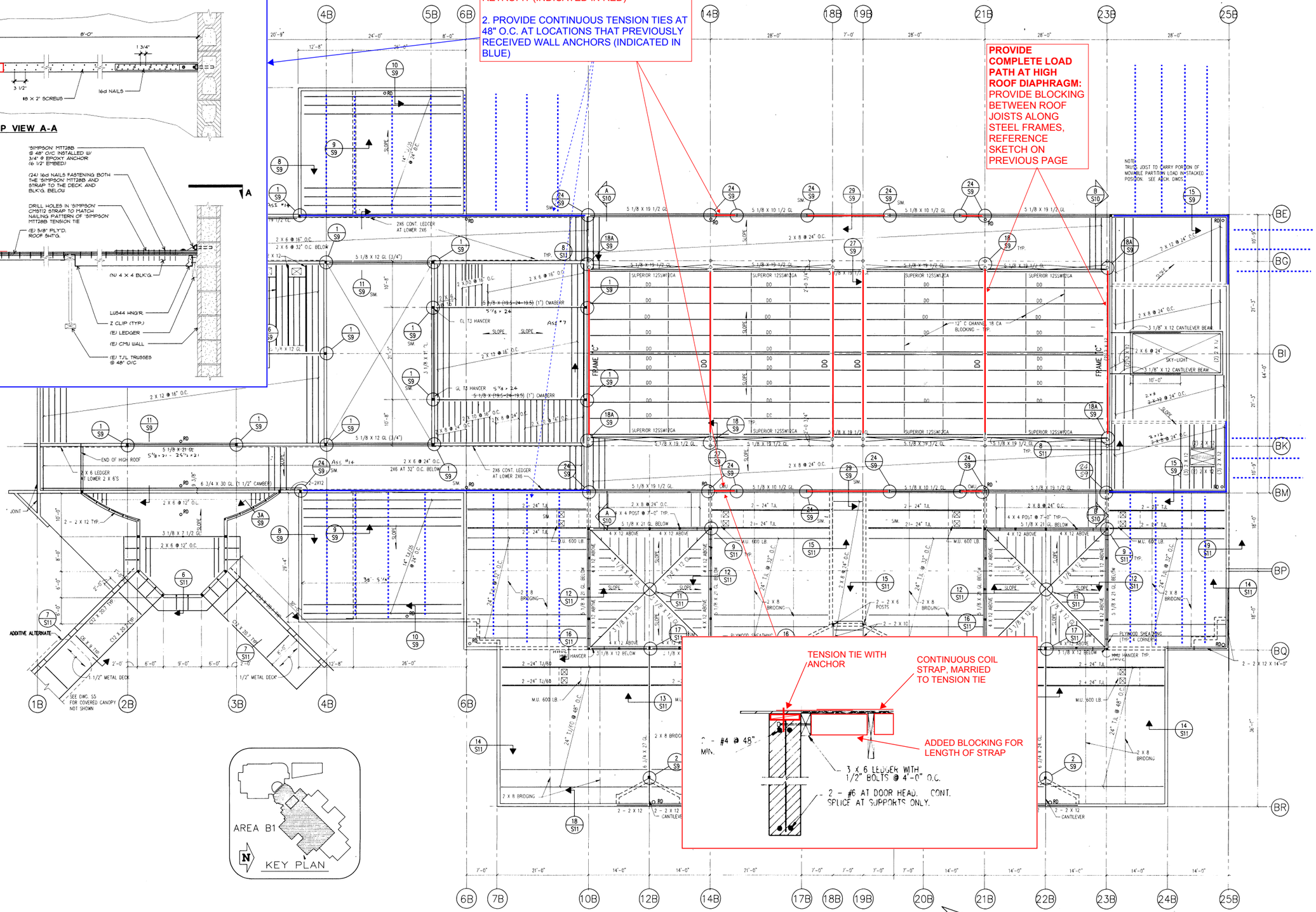
68602

PROVIDE WALL BRACING AT CMU WALLS:
1. PROVIDE WALL ANCHORS AND CONTINUOUS TENSION TIES AT 48" O.C. AT LOCATIONS THAT HAVE NOT RECEIVED A RETROFIT (INDICATED IN RED)

2. PROVIDE CONTINUOUS TENSION TIES AT 48" O.C. AT LOCATIONS THAT PREVIOUSLY RECEIVED WALL ANCHORS (INDICATED IN BLUE)

PROVIDE COMPLETE LOAD PATH AT HIGH ROOF DIAPHRAGM:
PROVIDE BLOCKING BETWEEN ROOF JOISTS ALONG STEEL FRAMES, REFERENCE SKETCH ON PREVIOUS PAGE





ROOF FRAMING PLAN – AREA B1

1/8" = 1'-0"

BEAVERTON SCHOOL DISTRICT NO. 48
A NEW ELEMENTARY SCHOOL
SW 155TH AND SATTERBURG ROAD
BEAVERTON, OREGON

MOFFATT NICHOL & BONNEY INC ENGINEE
PORTLAND

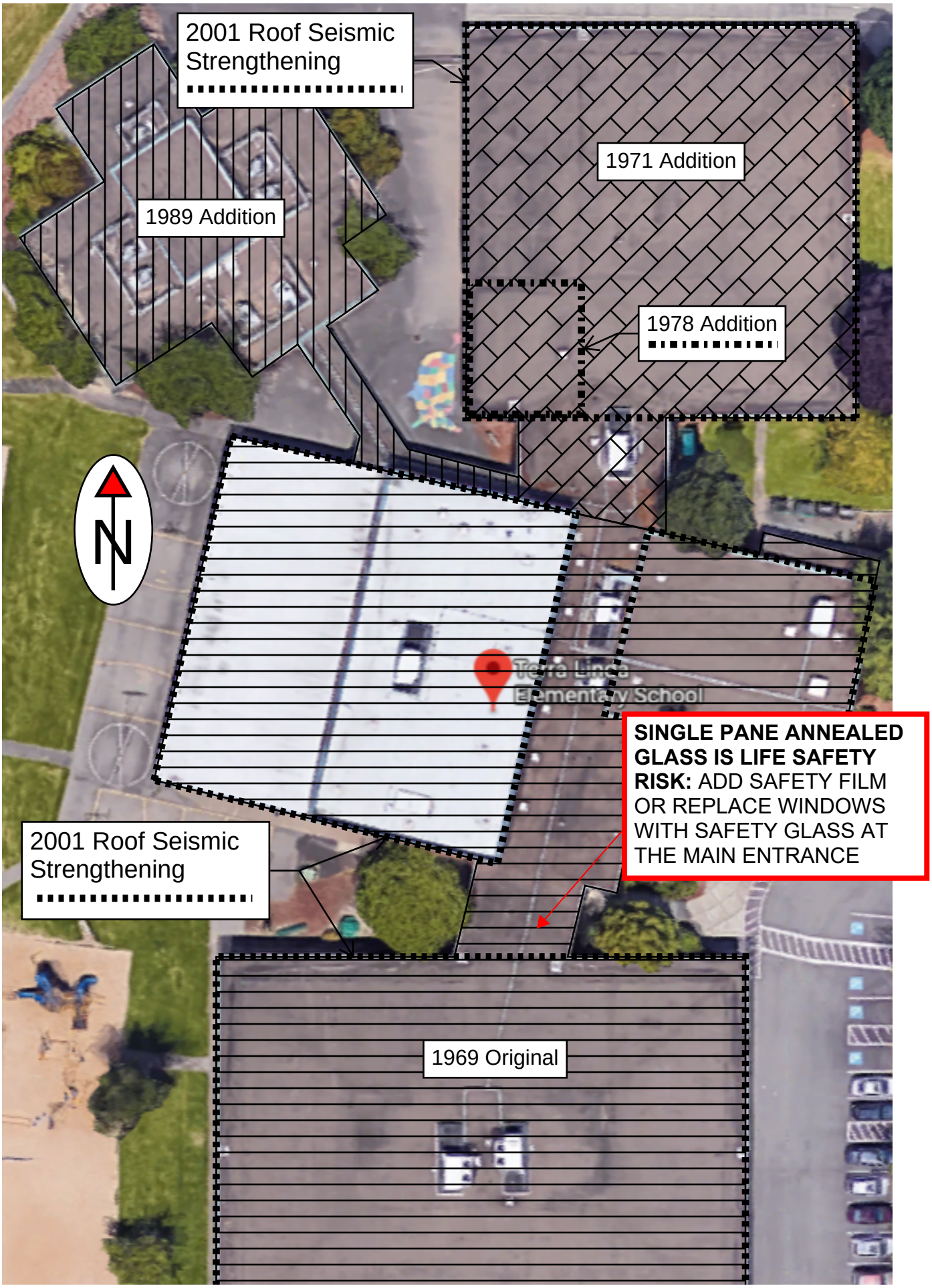
DULL OLSON WEEKES ARCHITECTS
115 NW First Avenue, Suite 301
Portland, Oregon 97209
503/226-0850

DATE 8/26/88
JOB # 8635
DRAWN BY J.H.
CHECKED BY C.S.W.
REVISIONS

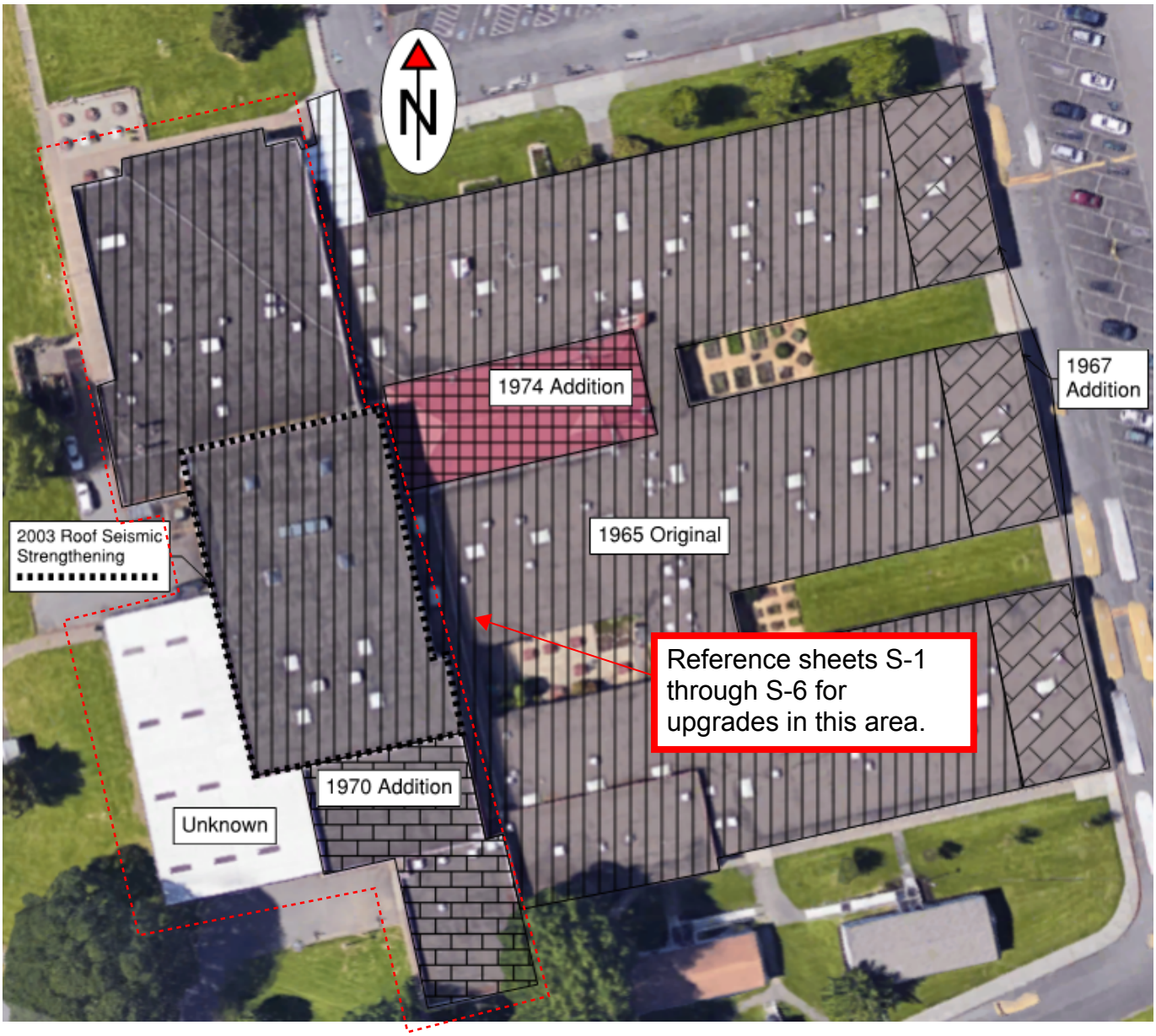
S6

68603

380556



31 - Terra Linda



35 - Cedar Park Middle School

1 / S-1 **BUILDING YEAR PLAN**

N.T.S

11/20/2013 9:01:14 AM
File Path:

STRUCTURAL ENGINEER

Holmes

Holmes Structures
235 Montgomery St., STE 1250
San Francisco, CA 94104 USA
415 693 1600
holmesstr.clares.com

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PROJECT NAME / LOCATION

Cedar Park Middle School
7935 SW Scholls Ferry Rd
Beaverton, OR 97008
Beaverton School District
Seismic Strengthening Scheme

ISSUE / REVISION

No.	DESCRIPTION	DATE
	SEISMIC UPGRADE SCHEME	1/16/2020

SCALE N.T.S.

S.E.R.

DESIGN

DRAWN

PROJECT No.

DRAWING TITLE

BUILDING YEAR PLAN

S-1

LEGEND

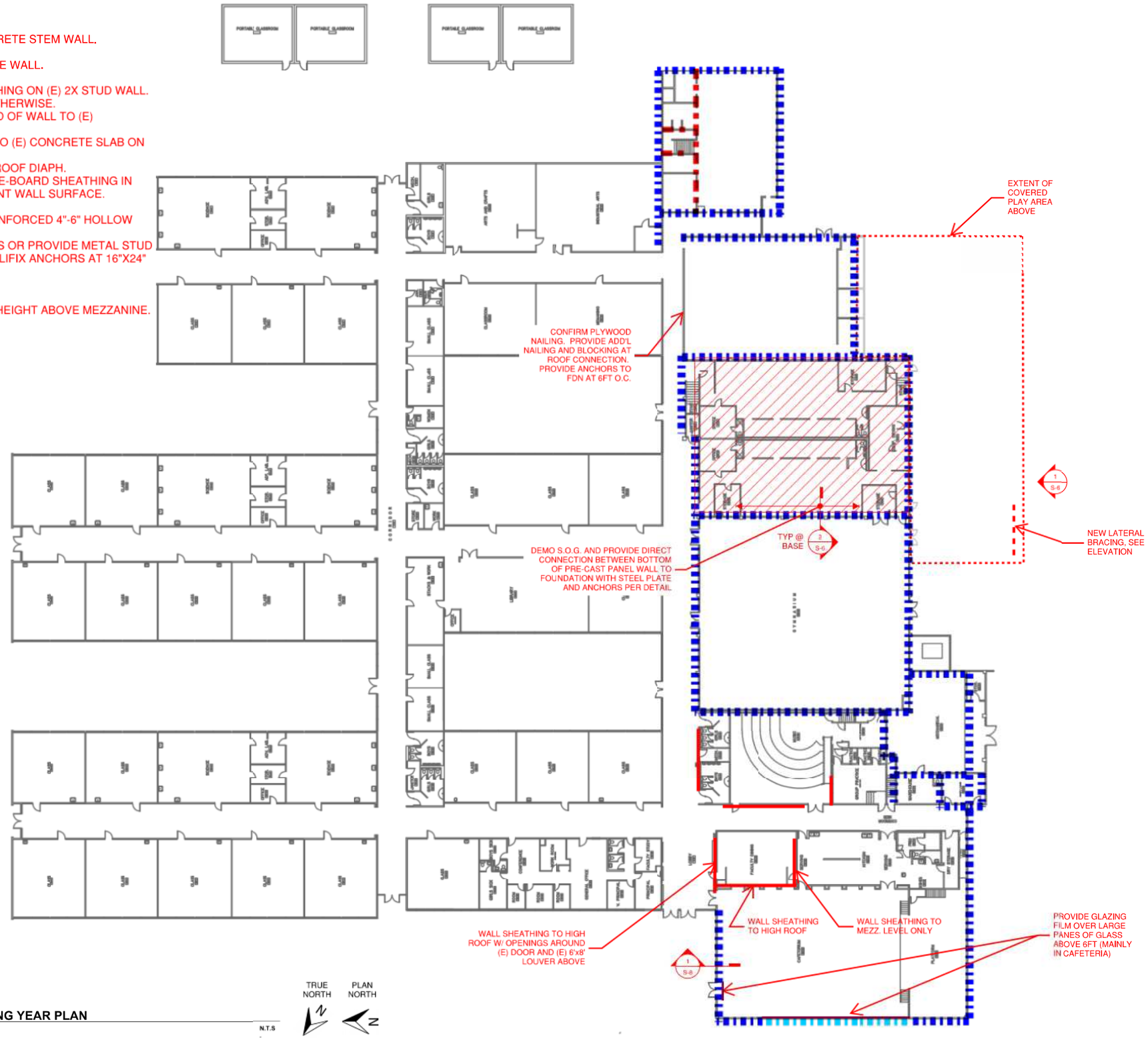
INDICATES PARTIAL HEIGHT CONCRETE STEM WALL.

INDICATES FULL HEIGHT CONCRETE WALL.

INDICATES NEW PLYWOOD SHEATHING ON (E) 2X STUD WALL.
- SINGLE-SIDED UNLESS NOTED OTHERWISE.
- PROVIDE HOLD DOWNS EACH END OF WALL TO (E) FOUNDATION BELOW,
- PROVIDE EPOXY SILL ANCHORS TO (E) CONCRETE SLAB ON GRADE AT 4' O.C.
- PROVIDE BLOCKING/NAILING TO ROOF DIAPH.
- IN CORRIDORS PROVIDE 1/2" SURE-BOARD SHEATHING IN LIEU OF PLYWOOD FOR CONSISTENT WALL SURFACE.

PROVIDE BRACING FOR ALL UNREINFORCED 4"-6" HOLLOW BLOCK WALLS IN THIS AREA.
REPLACE WITH METAL STUD WALLS OR PROVIDE METAL STUD WALL BRACING ON 1 SIDE WITH HELIFIX ANCHORS AT 16"X24" PATTERN TO (E) WALL.

INDICATES (E) CMU WALL TO RAIL HEIGHT ABOVE MEZZANINE.



1 S-2 **BUILDING YEAR PLAN**

N.T.S

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PROJECT NAME / LOCATION

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7935 SW Scholls Ferry Rd
Beaverton, OR 97008
Beaverton School District
Seismic Strengthening Scheme

ISSUE / REVISION

No.	DESCRIPTION	DATE
	SEISMIC UPGRADE SCHEME	1/16/2020

SCALE N.T.S.

S.E.R.

DESIGN

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PROJECT No.

DRAWING TITLE

LEVEL 1 PLAN

S-2

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File Path

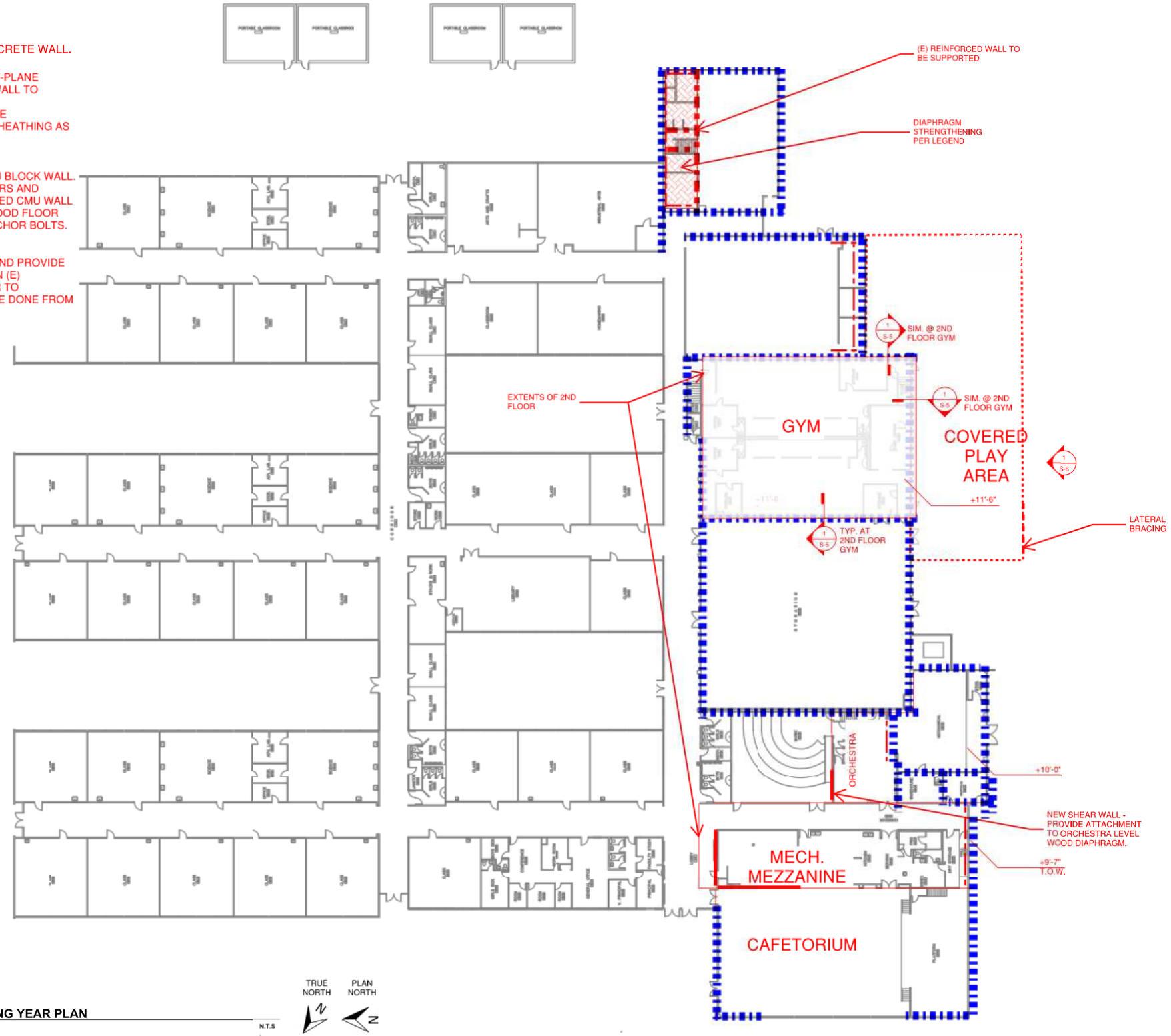
LEGEND

INDICATES FULL HEIGHT CONCRETE WALL.

PROVIDE IN-PLANE AND OUT-OF-PLANE ANCHORAGE FROM (E) CONC. WALL TO MEZZANINE LEVELS AT 4' O.C.
WORK TO BE DONE FROM ABOVE
REMOVE/REPLACE PLYWOOD SHEATHING AS REQ'D FOR ACCESS.

INDICATES (E) REINFORCED CMU BLOCK WALL. PROVIDE OUT-OF-PLANE ANCHORS AND STRAPPING FROM (E) REINFORCED CMU WALL TO STORAGE MEZZANINE PLYWOOD FLOOR WITH SIMPSON STRAPS AND ANCHOR BOLTS.

REMOVE (E) MASONITE FLOOR AND PROVIDE NEW 3/8" PLYWOOD OVERLAY ON (E) STRAIGHT SHEATHING. ANCHOR TO PERIMETER WALLS. WORK TO BE DONE FROM ABOVE.



1 S-3 **BUILDING YEAR PLAN** N.T.S

STRUCTURAL ENGINEER

Holmes

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235 Montgomery St, STE 1250
San Francisco, CA 94104 USA
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PROJECT NAME / LOCATION

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Beaverton School District
Seismic Strengthening Scheme

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	SEISMIC UPGRADE SCHEME	1/16/2020

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PROJECT No.

DRAWING TITLE

SECOND FLOOR / MEZZ. PLAN

S-3

11/20/2013 9:01:14 AM
File Path

LEGEND

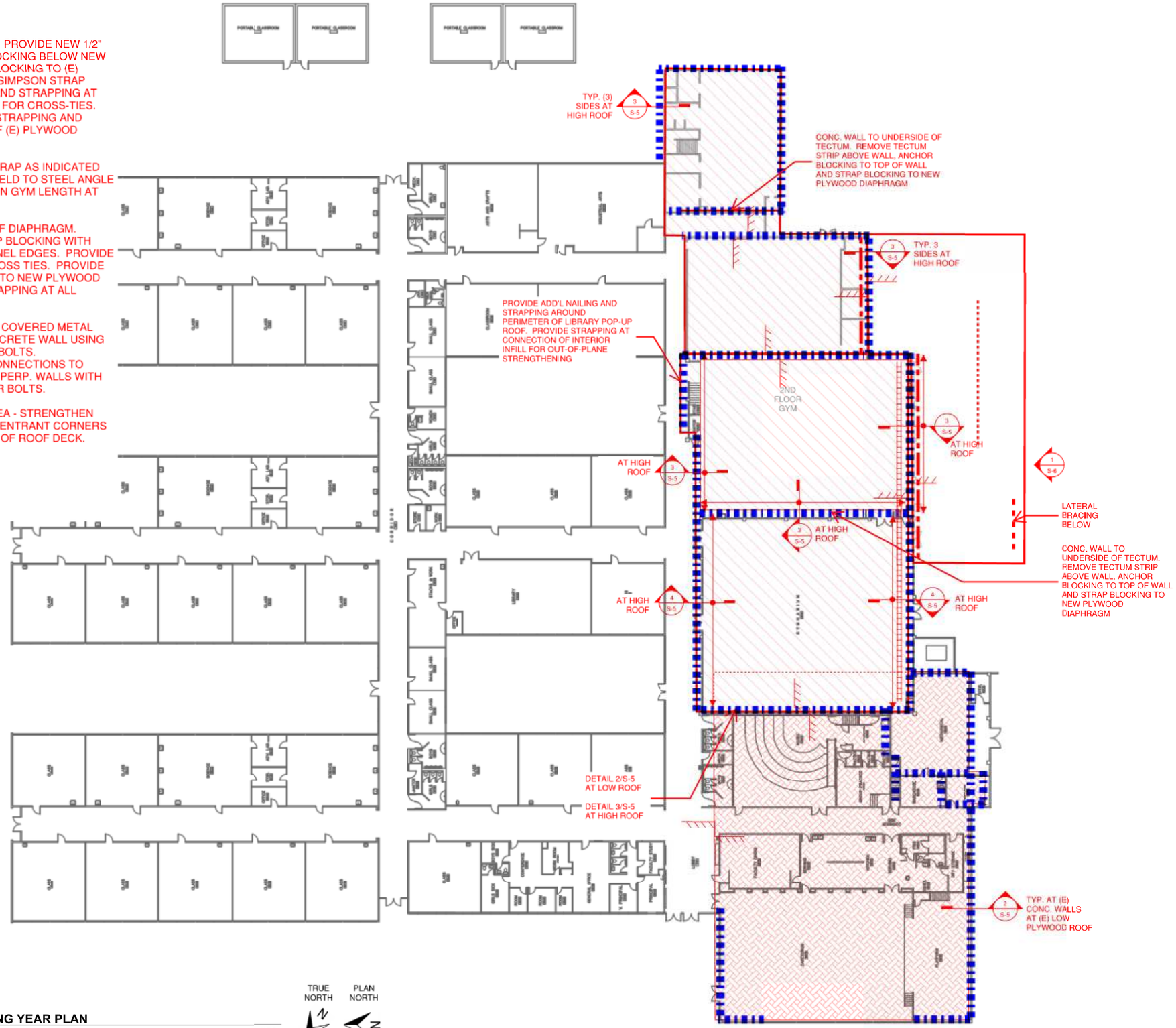
INDICATES (E) TECTUM ROOF. PROVIDE NEW 1/2" PLYWOOD OVERLAY WITH BLOCKING BELOW NEW PLYWOOD. THROUGH BOLT BLOCKING TO (E) TECTUM ROOFING. PROVIDE SIMPSON STRAP BLOCKING AT PANEL EDGES AND STRAPPING AT 9FT O.C. IN BOTH DIRECTIONS FOR CROSS-TIES. **PROVIDE ALT PRICING FOR STRAPPING AND ANCHORAGE ONLY ON TOP OF (E) PLYWOOD OVERLAY.**

PROVIDE 1/4" STEEL PLATE STRAP AS INDICATED ON PLAN. PLATE STRAP TO WELD TO STEEL ANGLE BOLTED TO CONC. ALONG MAIN GYM LENGTH AT INTERVALS

INDICATES (E) PLYWOOD ROOF DIAPHRAGM. PROVIDE LIGHT GAUGE STRAP BLOCKING WITH STAPLES ABOVE ROOF AT PANEL EDGES. PROVIDE SIMPSON STRAPPING FOR CROSS TIES. PROVIDE BLOCKING AND ATTACHMENT TO NEW PLYWOOD SHEAR WALLS. PROVIDE STRAPPING AT ALL RE-ENTRANT CORNERS.

PROVIDE ATTACHMENT FROM COVERED METAL DECK DIAPHRAGM TO (E) CONCRETE WALL USING STEEL ANGLES AND ANCHOR BOLTS. STRENGTHEN (E) WF BEAM CONNECTIONS TO PILASTERS AT CORNERS AND PERP. WALLS WITH WELDED PLATES AND ANCHOR BOLTS.

AT COVERED METAL PLAY AREA - STRENGTHEN LIGHT GAUGE FRAMING AT REENTRANT CORNERS WITH STRAPS ON UNDERSIDE OF ROOF DECK.



1 S-4 **BUILDING YEAR PLAN** N.T.S

TRUE NORTH PLAN NORTH

11/20/2013 9:01:14 AM
File Path

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Beaverton, OR 97008
Beaverton School District
Seismic Strengthening Scheme

ISSUE / REVISION

No.	DESCRIPTION	DATE
	SEISMIC UPGRADE SCHEME	1/16/2020

SCALE N.T.S.

S.E.R.

DESIGN

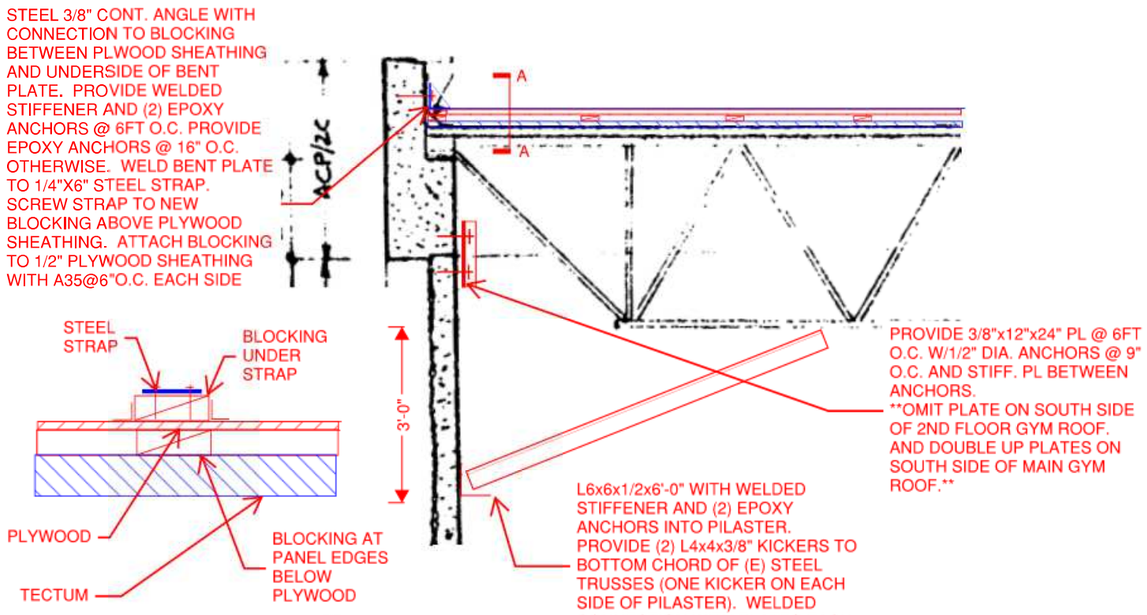
DRAWN

PROJECT No.

DRAWING TITLE

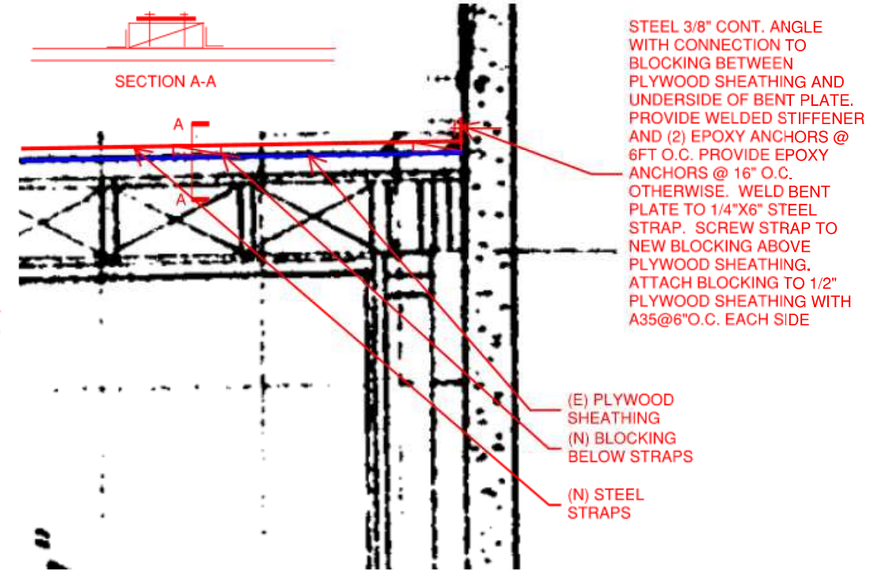
ROOF PLAN

S-4



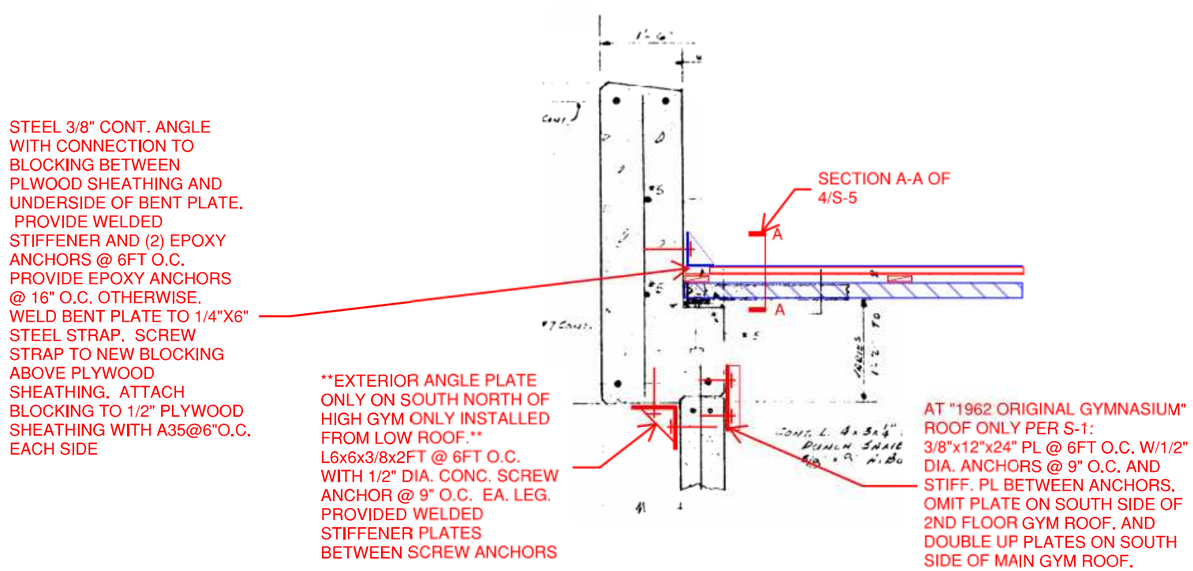
4 / S-5 **DETAIL**

N.T.S



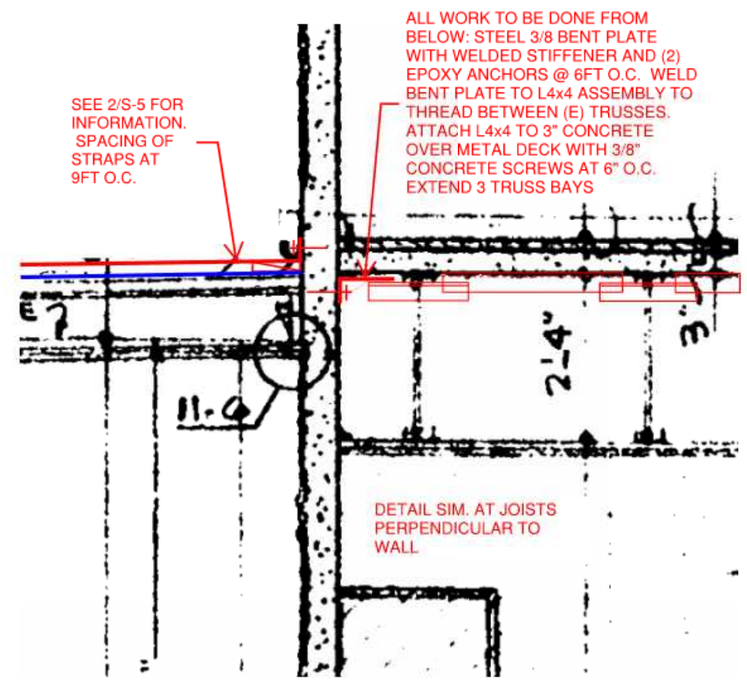
2 / S-5 **DETAIL**

N.T.S



3 / S-5 **DETAIL**

N.T.S



1 / S-5 **DETAIL**

N.T.S

STRUCTURAL ENGINEER

Holmes

Holmes Structures
235 Montgomery St., STE 1260
San Francisco, CA 94104 USA
415 693 1600
holmesstn.clares.com

STAMP

NOT FOR CONSTRUCTION

PROJECT NAME / LOCATION

Cedar Park Middle School
7935 SW Scholls Ferry Rd
Beaverton, OR 97008
Beaverton School District
Seismic Strengthening Scheme

ISSUE / REVISION

No.	DESCRIPTION	DATE
	SEISMIC UPGRADE SCHEME	1/16/2020

SCALE N.T.S.

S.E.R.

DESIGN

DRAWN

PROJECT No.

DRAWING TITLE

PRECAST DETAILS

S-5

11/20/2013 9:01:14 AM
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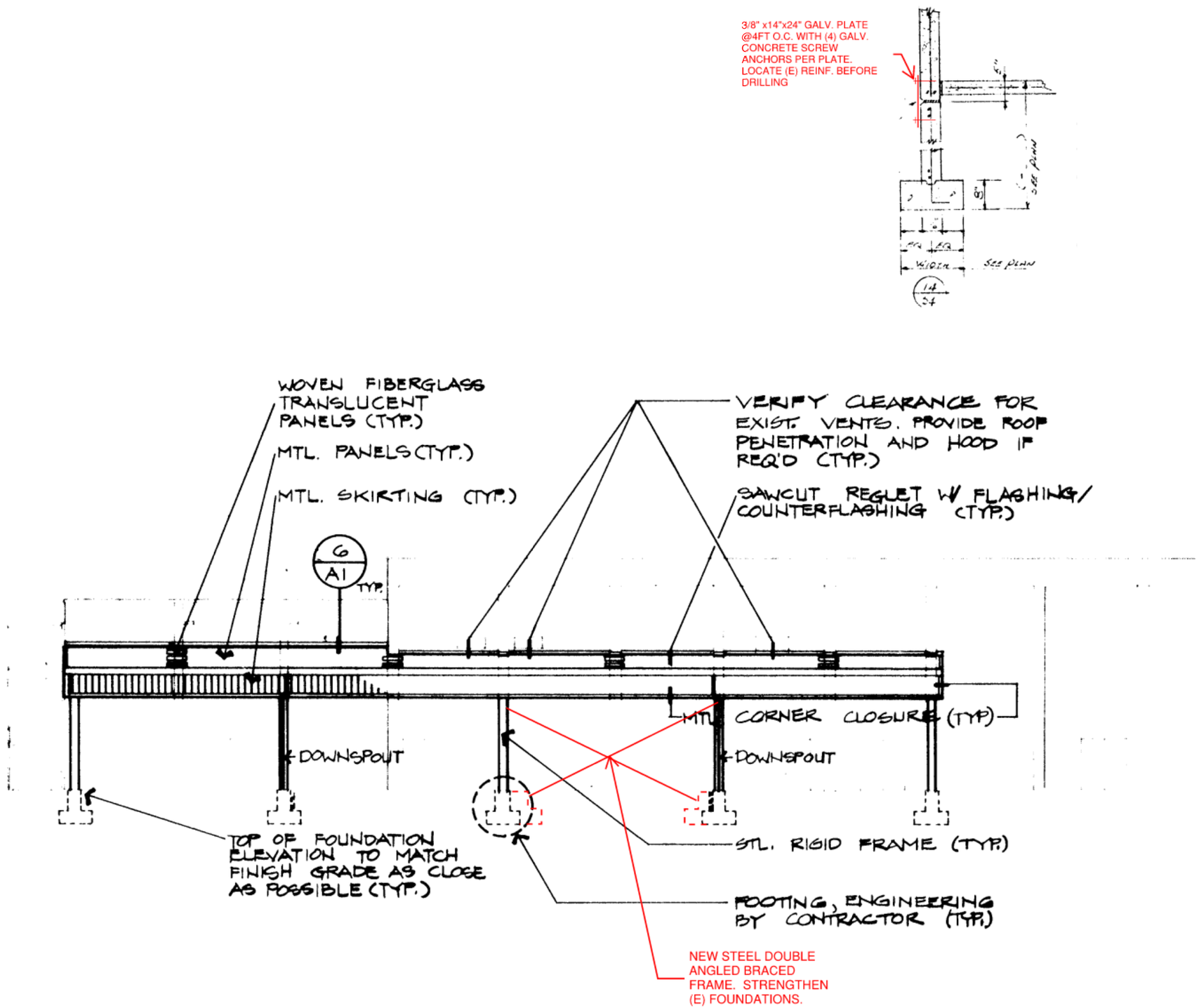

1 / S-6 **COVERED PLAY AREA ELEVATION**

11/20/2013 9:01:14 AM
File Path:

STRUCTURAL ENGINEER

Holmes

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235 Montgomery St., STE 1260
San Francisco, CA 94104 USA
415 693 1600
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PROJECT NAME / LOCATION

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7935 SW Scholls Ferry Rd
Beaverton, OR 97008
Beaverton School District
Seismic Strengthening Scheme

ISSUE / REVISION

No.	DESCRIPTION	DATE
	SEISMIC UPGRADE SCHEME	1/16/2020

SCALE N.T.S.

S.E.R.

DESIGN

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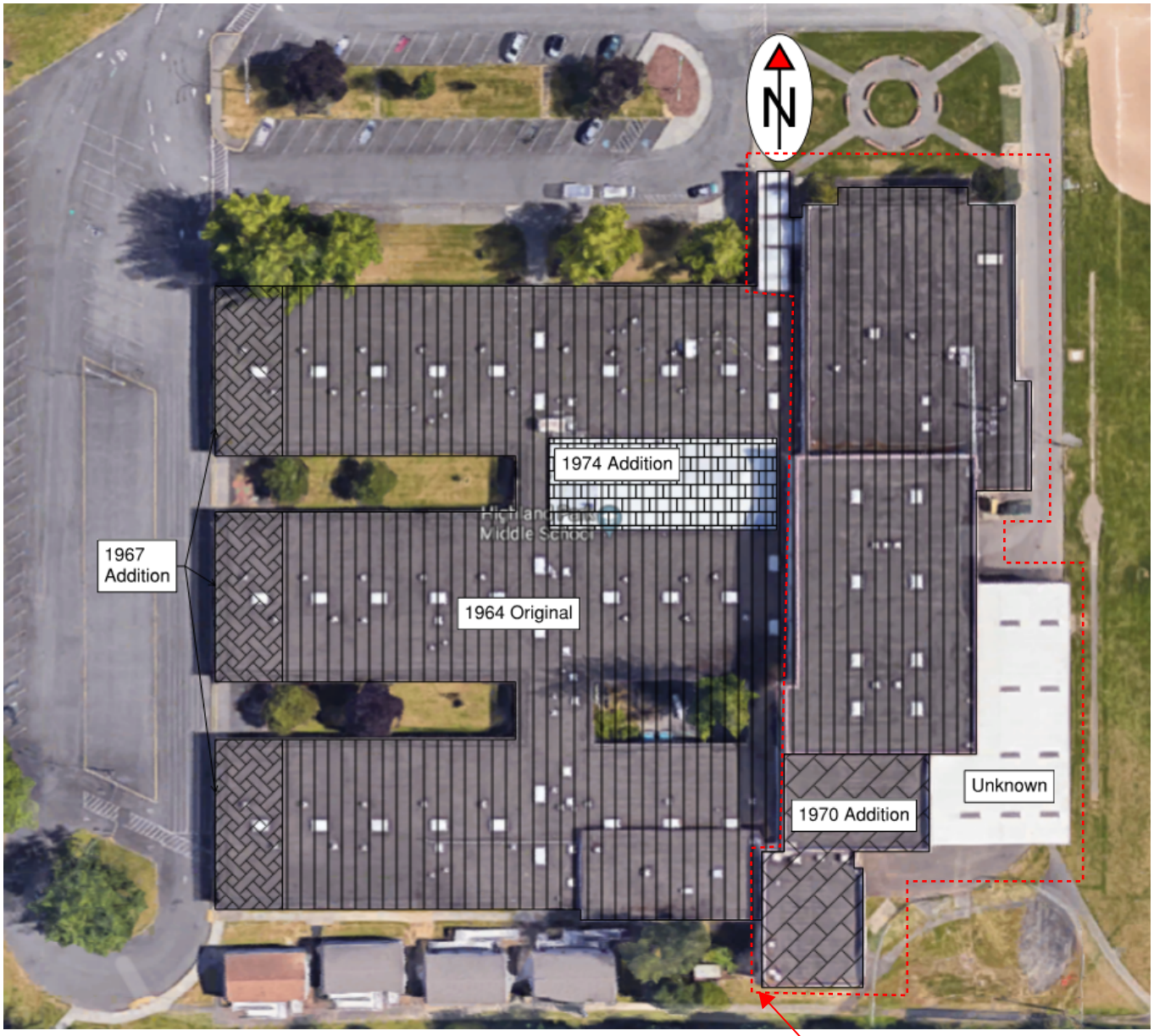
PROJECT No.

DRAWING TITLE

COVERED PLAY AREA

S-6



Reference sheets S-1 through S-7 for upgrades in this area.

38 - Highland Park Middle School

NOTES: PORTABLES MOVED 10' UP TO FIT ONTO SHEET

1 / S-1 **BUILDING YEAR PLAN** N.T.S.

N TRUE NORTH

N PLAN NORTH

STRUCTURAL ENGINEER

Holmes

Holmes Structures
235 Montgomery St, STE 1260
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PROJECT NAME / LOCATION

Highland Park Middle School

7000 SW Wilson Ave
Beaverton, OR 97008
Beaverton School District
Seismic Strengthening Scheme

ISSUE / REVISION

No.	DESCRIPTION	DATE
	SEISMIC UPGRADE SCHEME	1/16/2020

SCALE N.T.S.

S.E.R.

DESIGN

DRAWN

PROJECT No.

DRAWING TITLE

BUILDING YEAR PLAN

S-1

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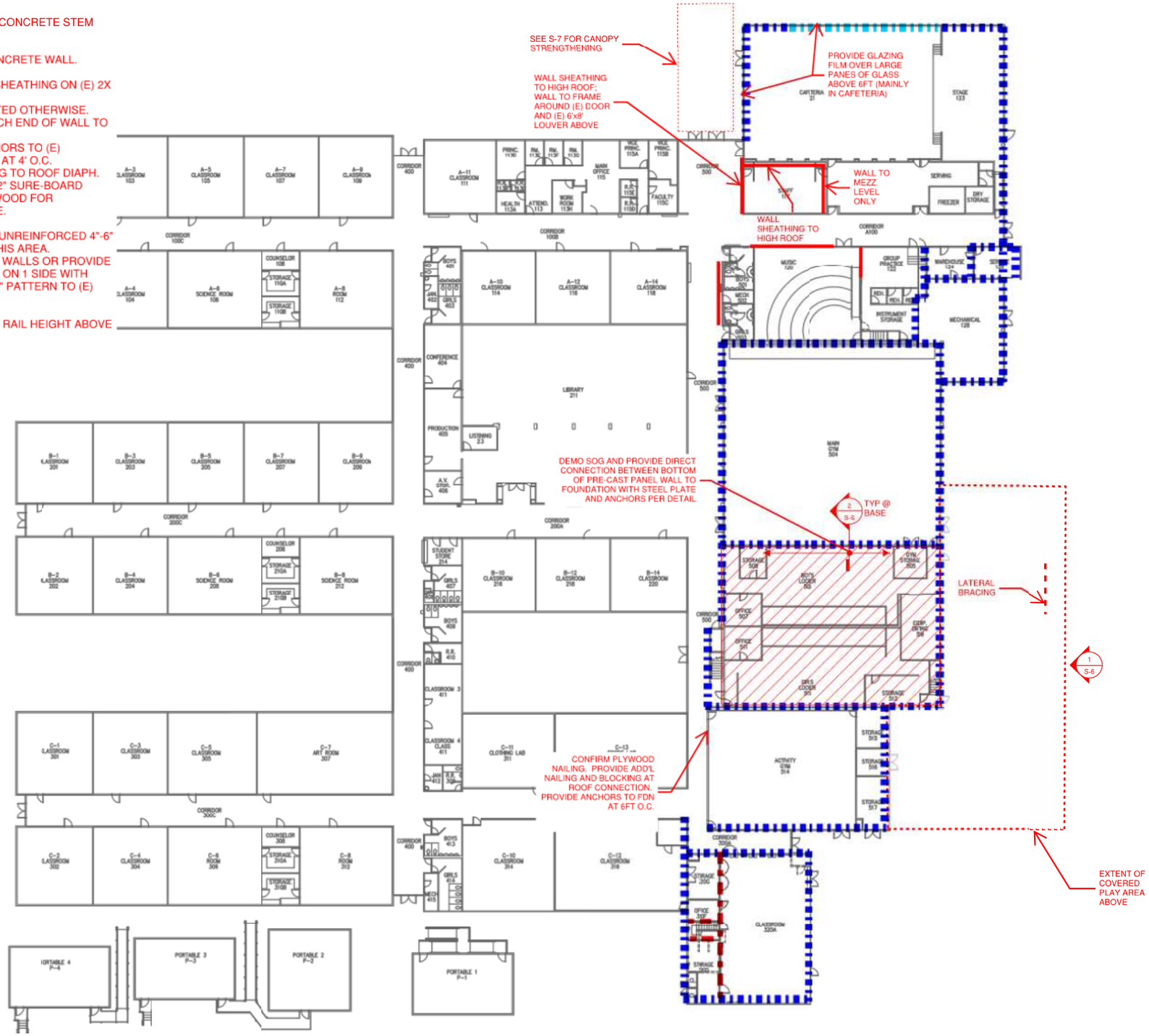
File Path

LEGEND

- INDICATES PARTIAL HEIGHT CONCRETE STEM WALL.
- INDICATES FULL HEIGHT CONCRETE WALL.
- INDICATES NEW PLYWOOD SHEATHING ON (E) 2X STUD WALL.
  - SINGLE-SIDED UNLESS NOTED OTHERWISE.
  - PROVIDE HOLD DOWNS EACH END OF WALL TO (E) FOUNDATION BELOW.
  - PROVIDE EPOXY SILL ANCHORS TO (E) CONCRETE SLAB ON GRADE AT 4' O.C.
  - PROVIDE BLOCKING/NAILING TO ROOF DIAPH.
  - IN CORRIDORS PROVIDE 1/2" SURE-BOARD SHEATHING IN LIEU OF PLYWOOD FOR CONSISTENT WALL SURFACE.
- PROVIDE BRACING FOR ALL UNREINFORCED 4"-6" HOLLOW BLOCK WALLS IN THIS AREA. REPLACE WITH METAL STUD WALLS OR PROVIDE METAL STUD WALL BRACING ON 1 SIDE WITH HELIFIX ANCHORS AT 16"X24" PATTERN TO (E) WALL.
- INDICATES (E) CMU WALL TO RAIL HEIGHT ABOVE MEZZANINE.



NOTES: PORTABLES MOVED 10' UP TO FIT ONTO SHEET

1 S-2 **LEVEL 1 PLAN**

N.T.S

N TRUE NORTH

N PLAN NORTH

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STRUCTURAL ENGINEER

Holmes

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SCALE N.T.S.

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LEVEL 1 PLAN

S-2

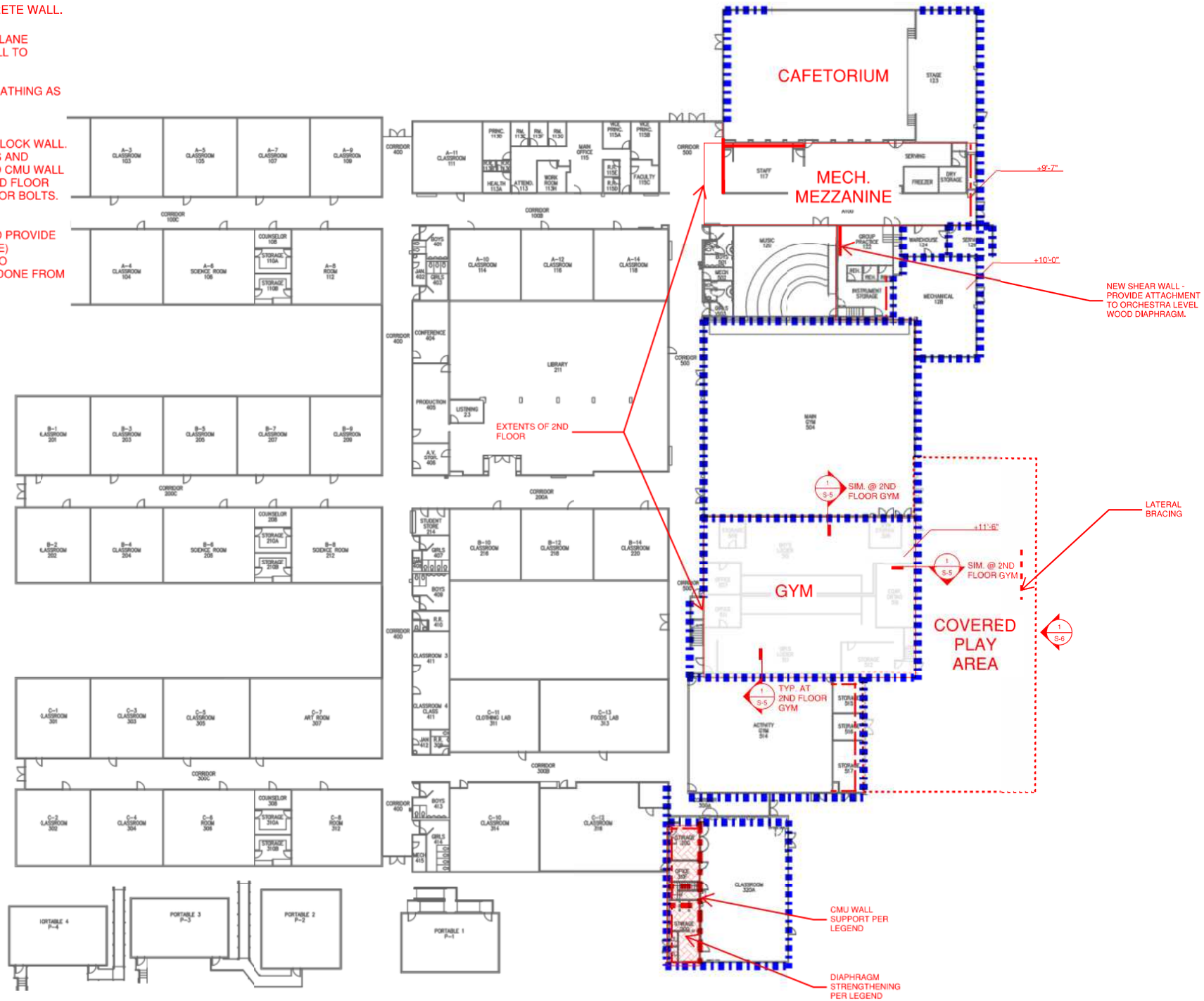
LEGEND

INDICATES FULL HEIGHT CONCRETE WALL.

PROVIDE IN-PLANE AND OUT-OF-PLANE ANCHORAGE FROM (E) CONC. WALL TO MEZZANINE LEVELS AT 4' O.C.
WORK TO BE DONE FROM ABOVE
REMOVE/REPLACE PLYWOOD SHEATHING AS REQ'D FOR ACCESS.

INDICATES (E) REINFORCED CMU BLOCK WALL. PROVIDE OUT-OF-PLANE ANCHORS AND STRAPPING FROM (E) REINFORCED CMU WALL TO STORAGE MEZZANINE PLYWOOD FLOOR WITH SIMPSON STRAPS AND ANCHOR BOLTS.

REMOVE (E) MASONITE FLOOR AND PROVIDE NEW 3/8" PLYWOOD OVERLAY ON (E) STRAIGHT SHEATHING. ANCHOR TO PERIMETER WALLS. WORK TO BE DONE FROM ABOVE.



NOTES: PORTABLES MOVED 10' UP TO FIT ONTO SHEET

1 / S-3 **SECOND FLOOR / MEZZ. PLAN**

N.T.S

N TRUE NORTH

N PLAN NORTH

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DRAWING TITLE

SECOND FLOOR / MEZZ. PLAN

S-3

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File Path

LEGEND

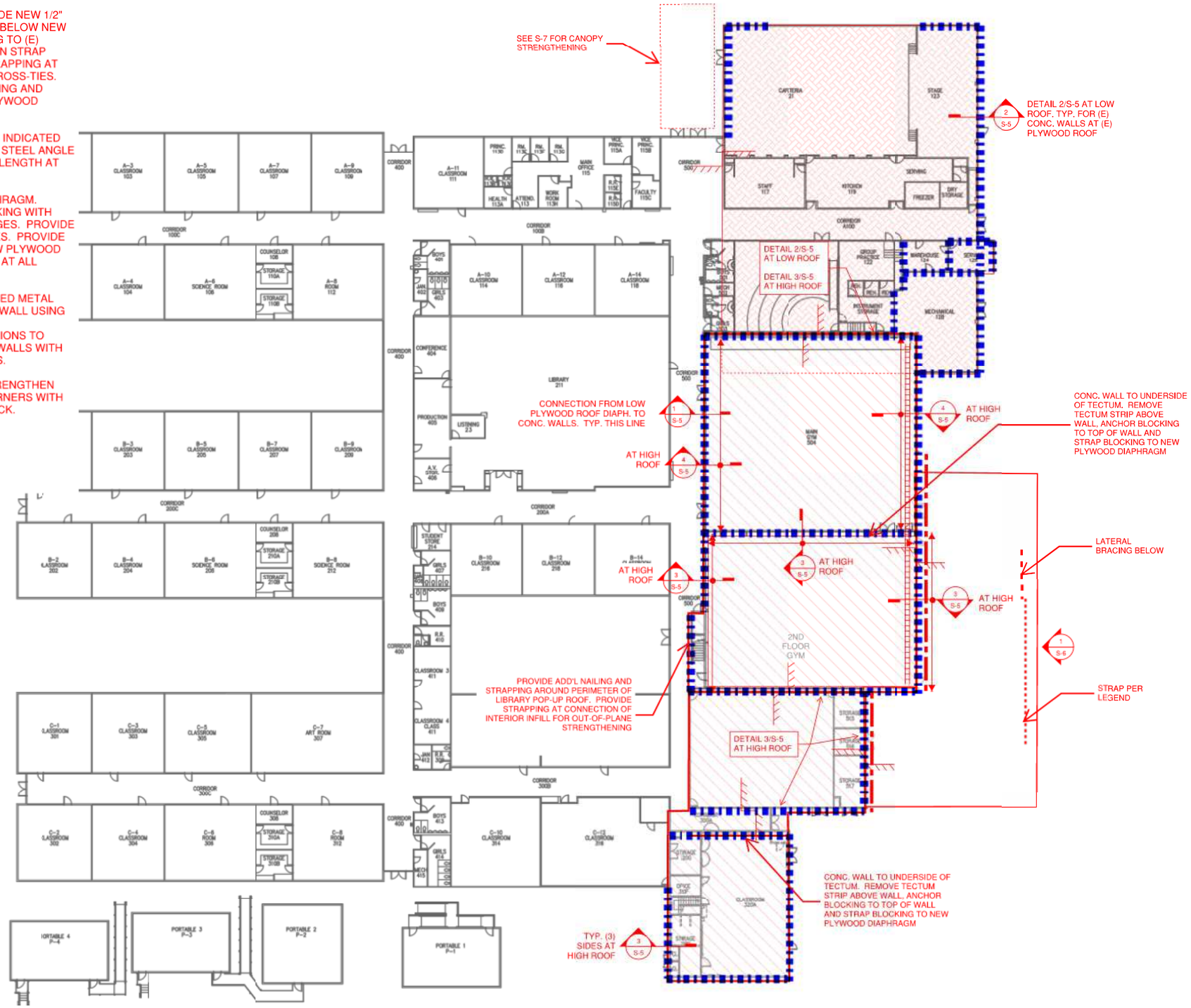
INDICATES (E) TECTUM ROOF. PROVIDE NEW 1/2" PLYWOOD OVERLAY WITH BLOCKING BELOW NEW PLYWOOD. THROUGH BOLT BLOCKING TO (E) TECTUM ROOFING. PROVIDE SIMPSON STRAP BLOCKING AT PANEL EDGES AND STRAPPING AT 9FT O.C. IN BOTH DIRECTIONS FOR CROSS-TIES. **PROVIDE ALT PRICING FOR STRAPPING AND ANCHORAGE ONLY ON TOP OF (E) PLYWOOD OVERLAY.**

PROVIDE 1/4" STEEL PLATE STRAP AS INDICATED ON PLAN. PLATE STRAP TO WELD TO STEEL ANGLE BOLTED TO CONC. ALONG MAIN GYM LENGTH AT INTERVALS

INDICATES (E) PLYWOOD ROOF DIAPHRAGM. PROVIDE LIGHT GAUGE STRAP BLOCKING WITH STAPLES ABOVE ROOF AT PANEL EDGES. PROVIDE SIMPSON STRAPPING FOR CROSS TIES. PROVIDE BLOCKING AND ATTACHMENT TO NEW PLYWOOD SHEAR WALLS. PROVIDE STRAPPING AT ALL RE-ENTRANT CORNERS.

PROVIDE ATTACHMENT FROM COVERED METAL DECK DIAPHRAGM TO (E) CONCRETE WALL USING STEEL ANGLES AND ANCHOR BOLTS. STRENGTHEN (E) WF BEAM CONNECTIONS TO PILASTERS AT CORNERS AND PERP. WALLS WITH WELDED PLATES AND ANCHOR BOLTS.

AT COVERED METAL PLAY AREA - STRENGTHEN GUAGE FRAMING AT REENTRANT CORNERS WITH STRAPS ON UNDERSIDE OF ROOF DECK.



NOTES: PORTABLES MOVED 10' UP TO FIT ONTO SHEET

1 S-4 **SECOND FLOOR / MEZZ. PLAN**

N.T.S

N TRUE NORTH

N PLAN NORTH

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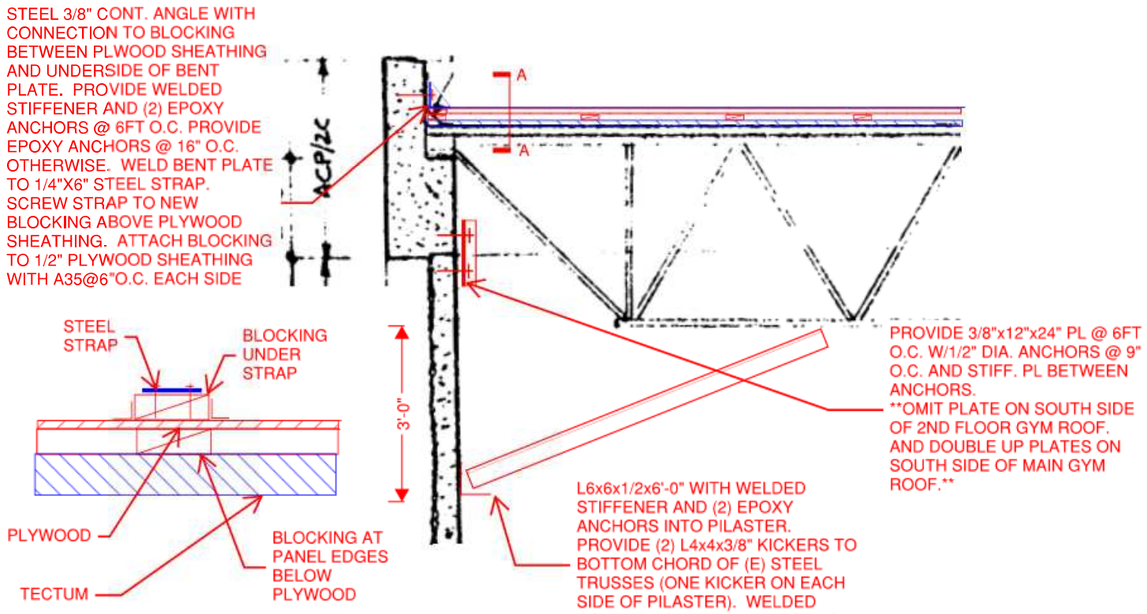
PROJECT No.

DRAWING TITLE

ROOF PLAN

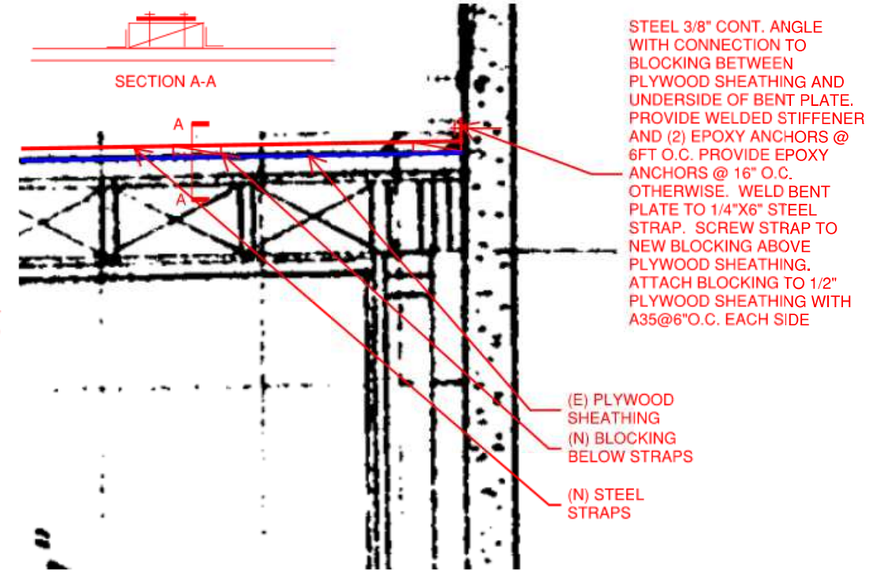
S-4

11/20/2013 9:01:14 AM
File Path



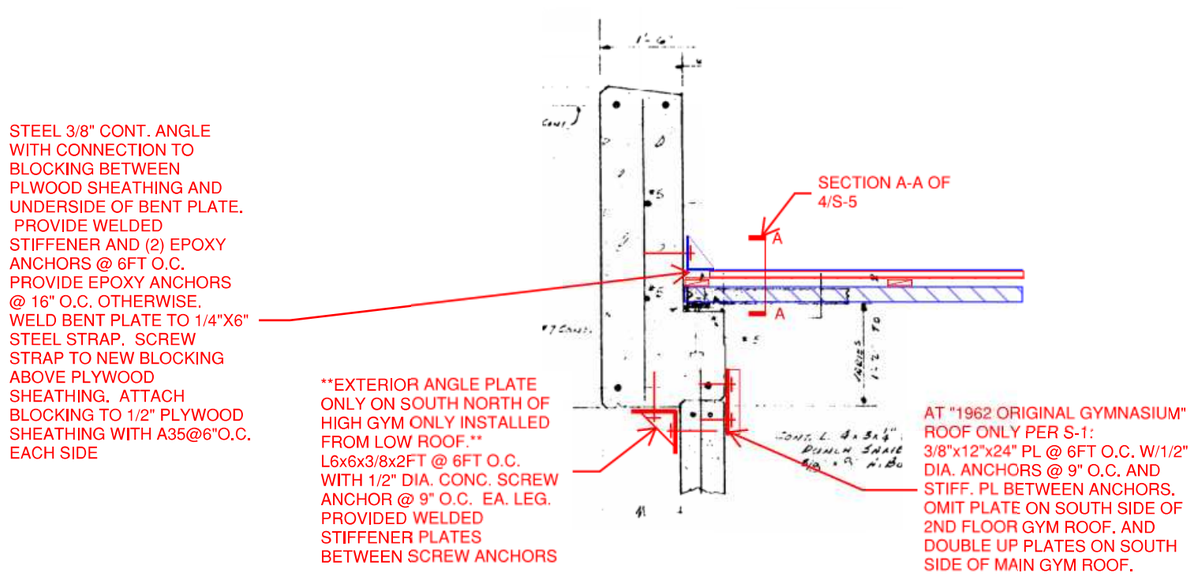
4 S-5 **DETAIL**

N.T.S



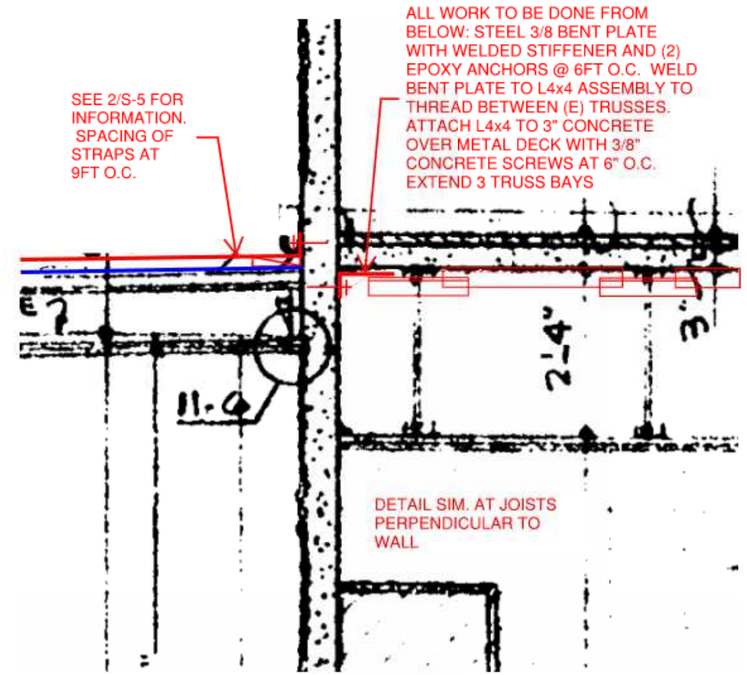
2 S-5 **DETAIL**

N.T.S



3 S-5 **DETAIL**

N.T.S



1 S-5 **DETAIL**

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PRECAST DETAILS

S-5

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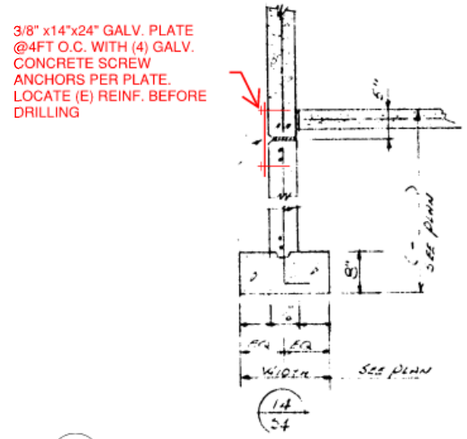
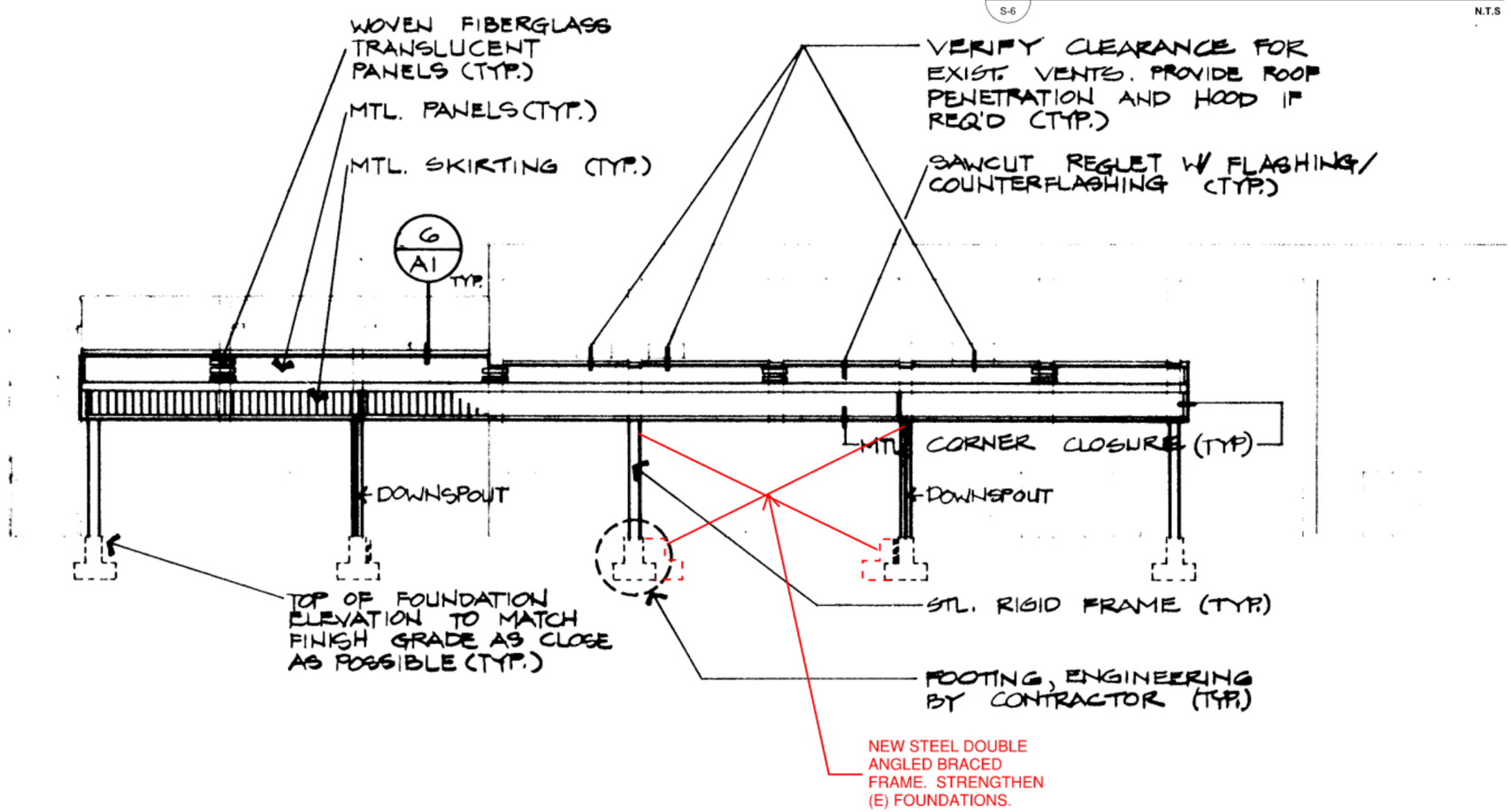


2 / S-6 **PRE-CAST WALL TO FDN DETAIL**

N.T.S



1 / S-6 **COVERED PLAY AREA ELEVATION**

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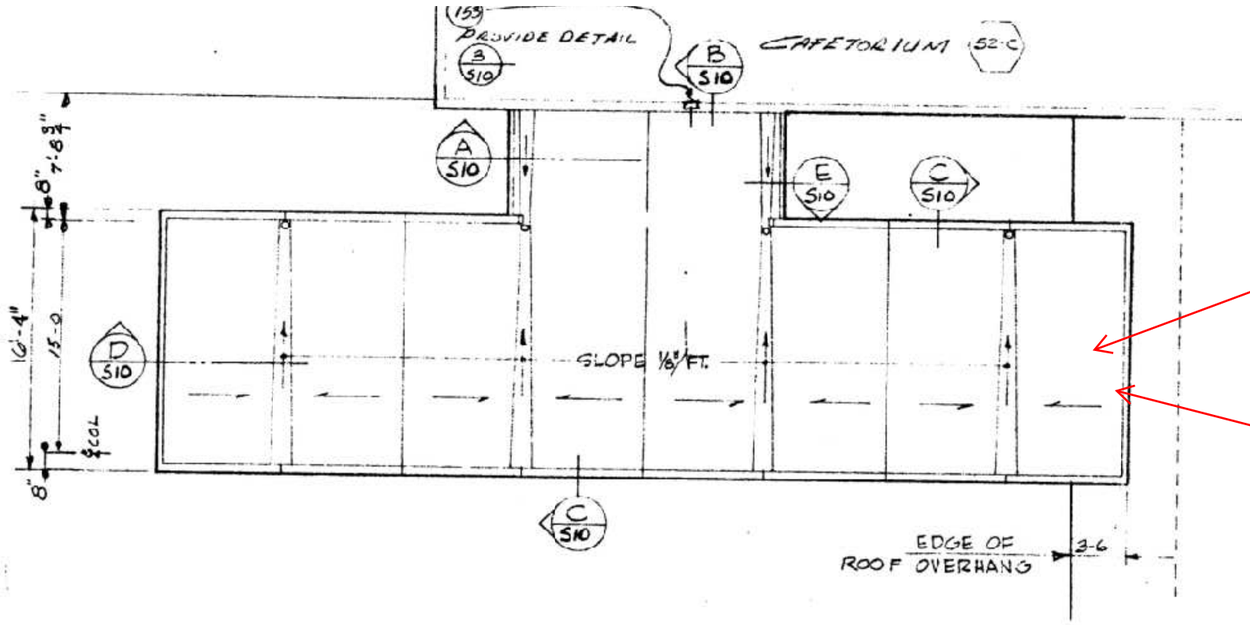
PROJECT No.

DRAWING TITLE

COVERED PLAY AREA

S-6

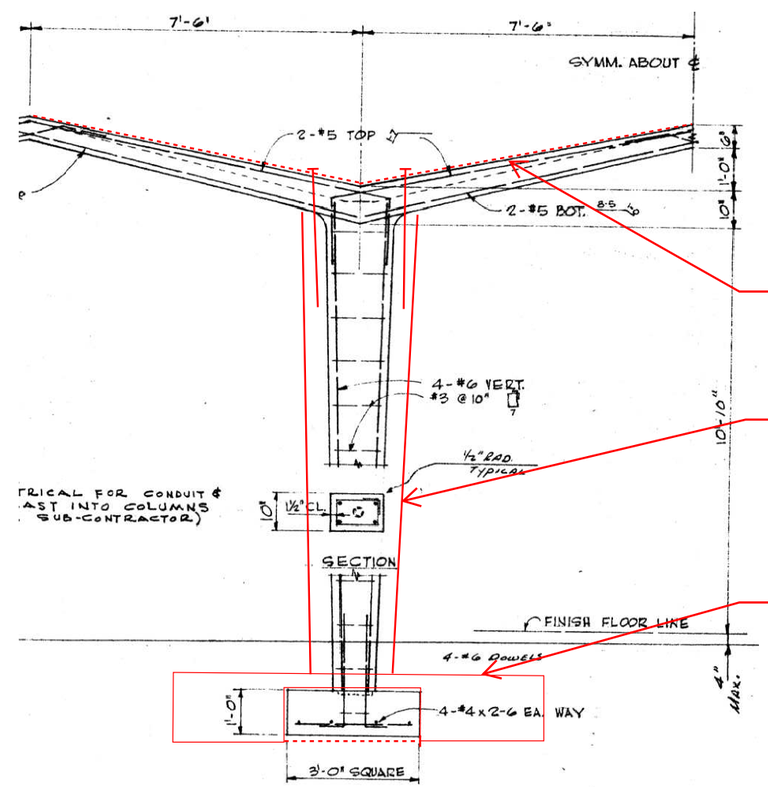


PROVIDE SINGLE LAYER FRP ON TOP OF CANOPY

STRENGTHEN (8) CANOPY COLUMNS PER DETAIL BELOW

ROOF PLAN

1/8" = 1'-0"



PROVIDE SINGLE LAYER FRP ON TOP OF CANOPY

PROVIDE NEW CONCRETE COLUMN AROUND (E) COL. NEW COL TO BE 18" SQ. HOOK DOWEL INTO FOOTING AND PROVIDE GALVANIZED ANCHORS TO CANOPY.

STRENGTHEN AND EXTEND FOOTING TO BE 6FTx6FT. PROVIDE REINF IN FOOTING AND DOWEL TO EXISTING FOOTING ALL AROUND. DO NOT UNDERMINE (E) FOOTING BUT PROVIDE PERIMETER FOOTING EXPANSION. DEMO TOP 6" OF (E) FOOTING FOR NEW TOP REINF.

1 / S-7 **CANOPY**

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Seismic Strengthening Scheme

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■ DESIGN

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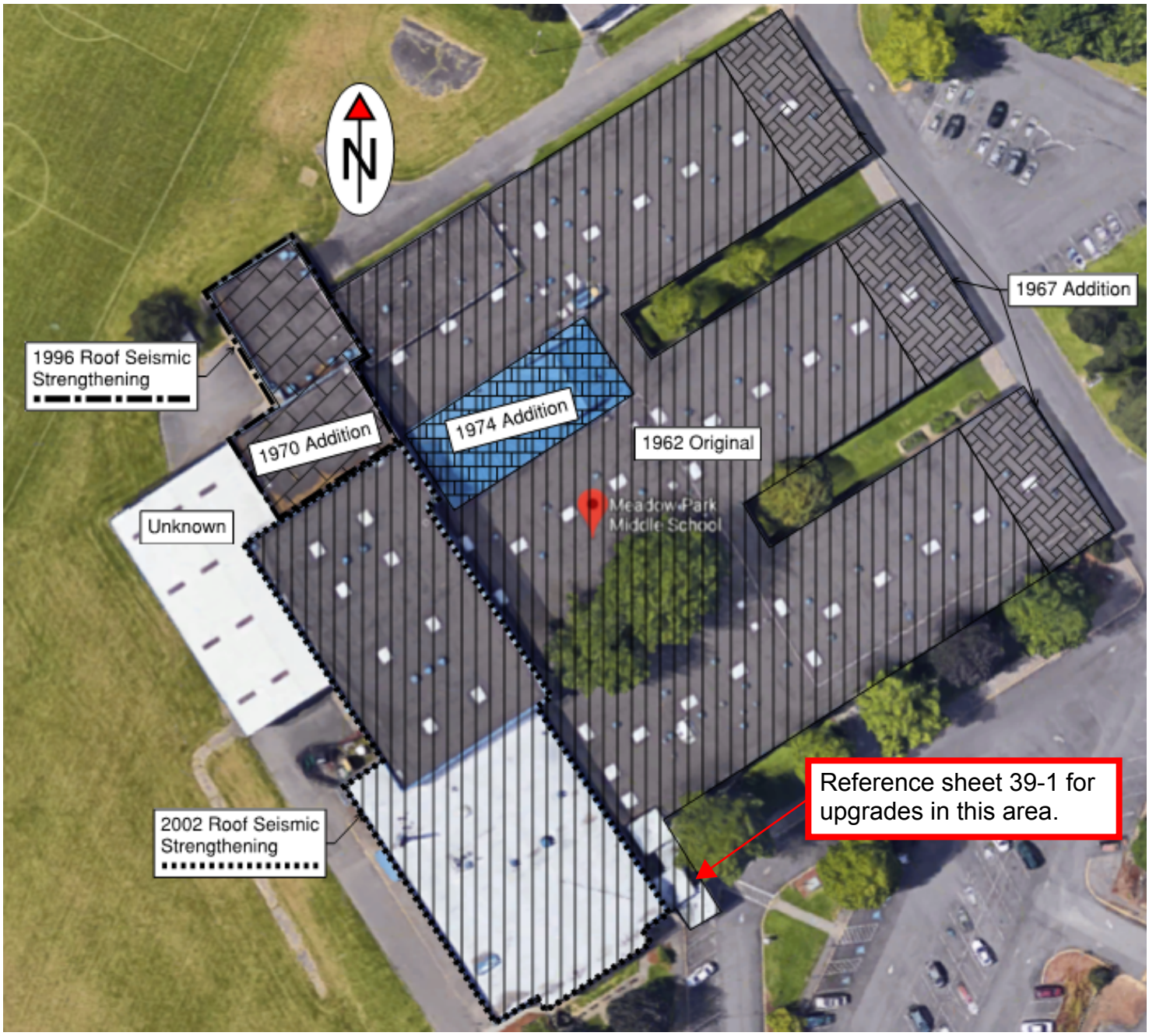
■ PROJECT No.

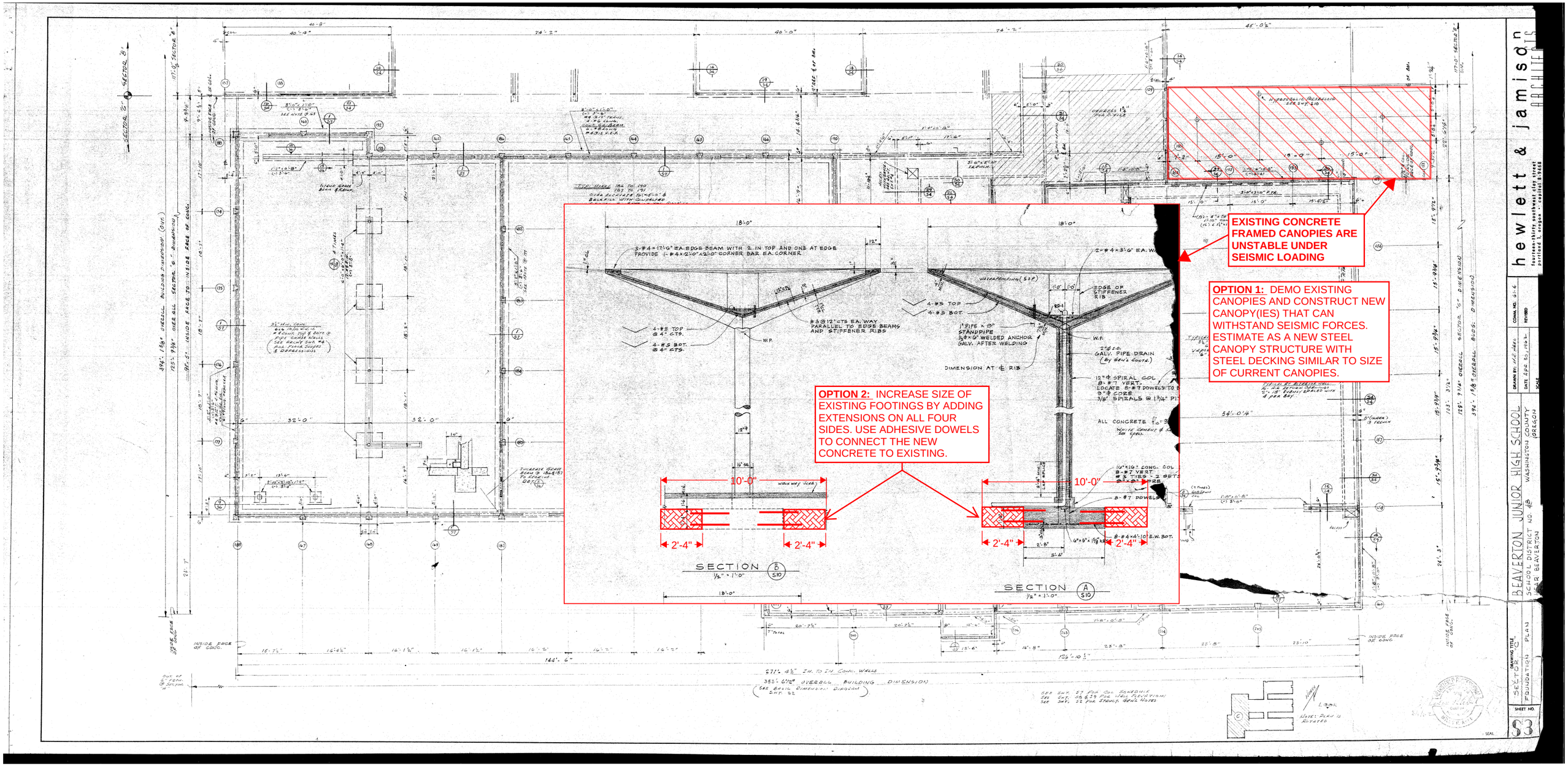
■ DRAWING TITLE

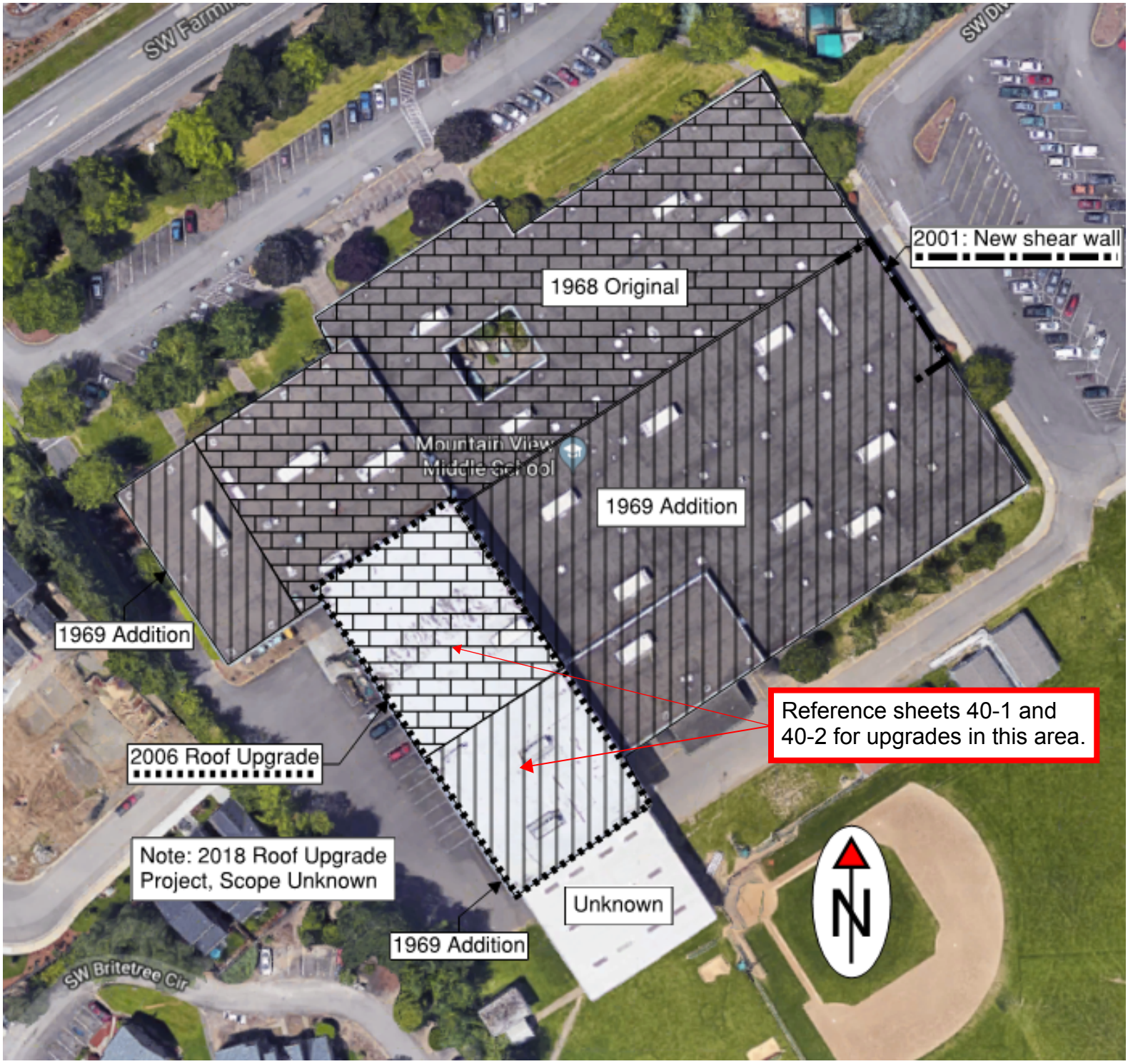
CANOPY

S-7

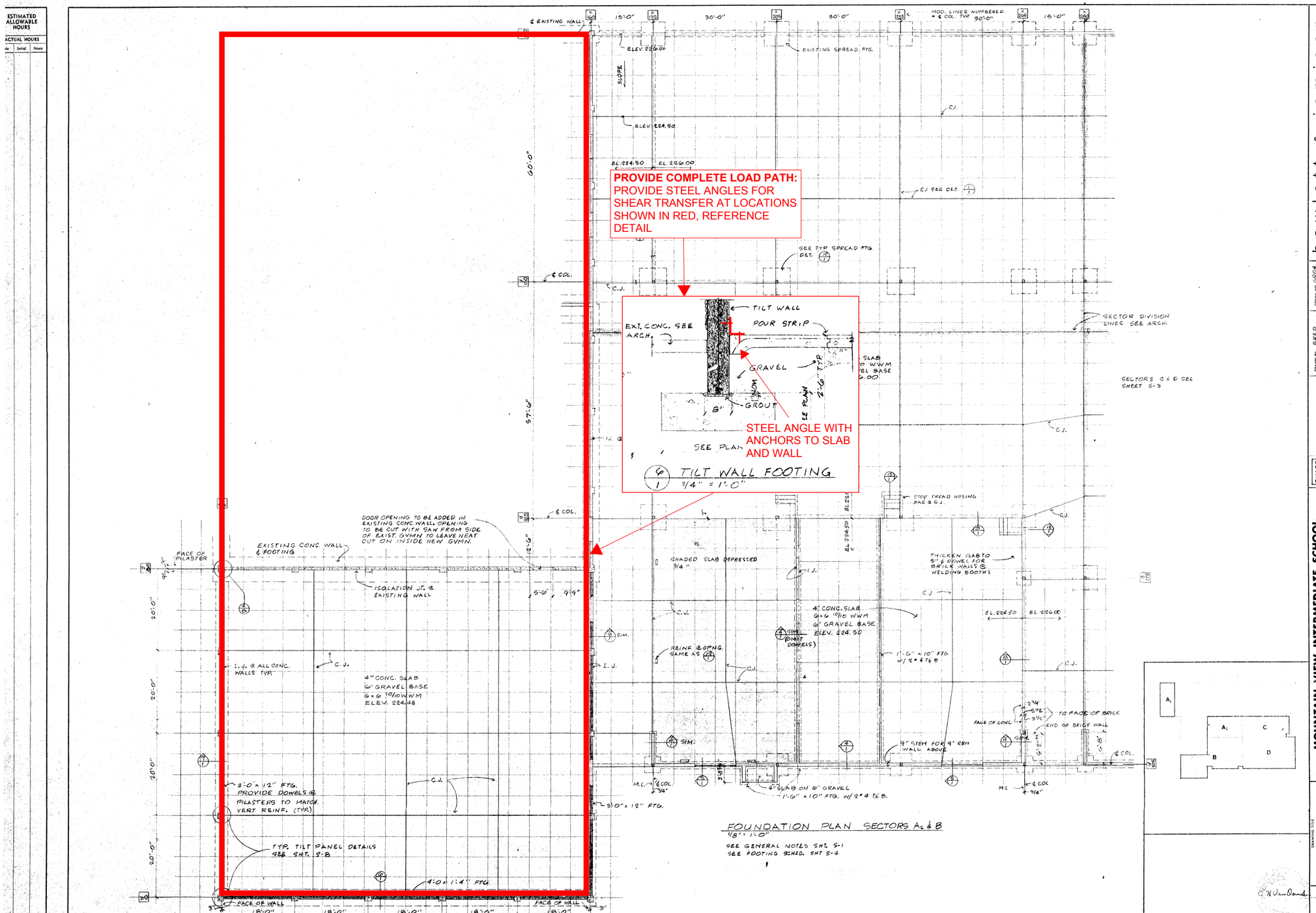


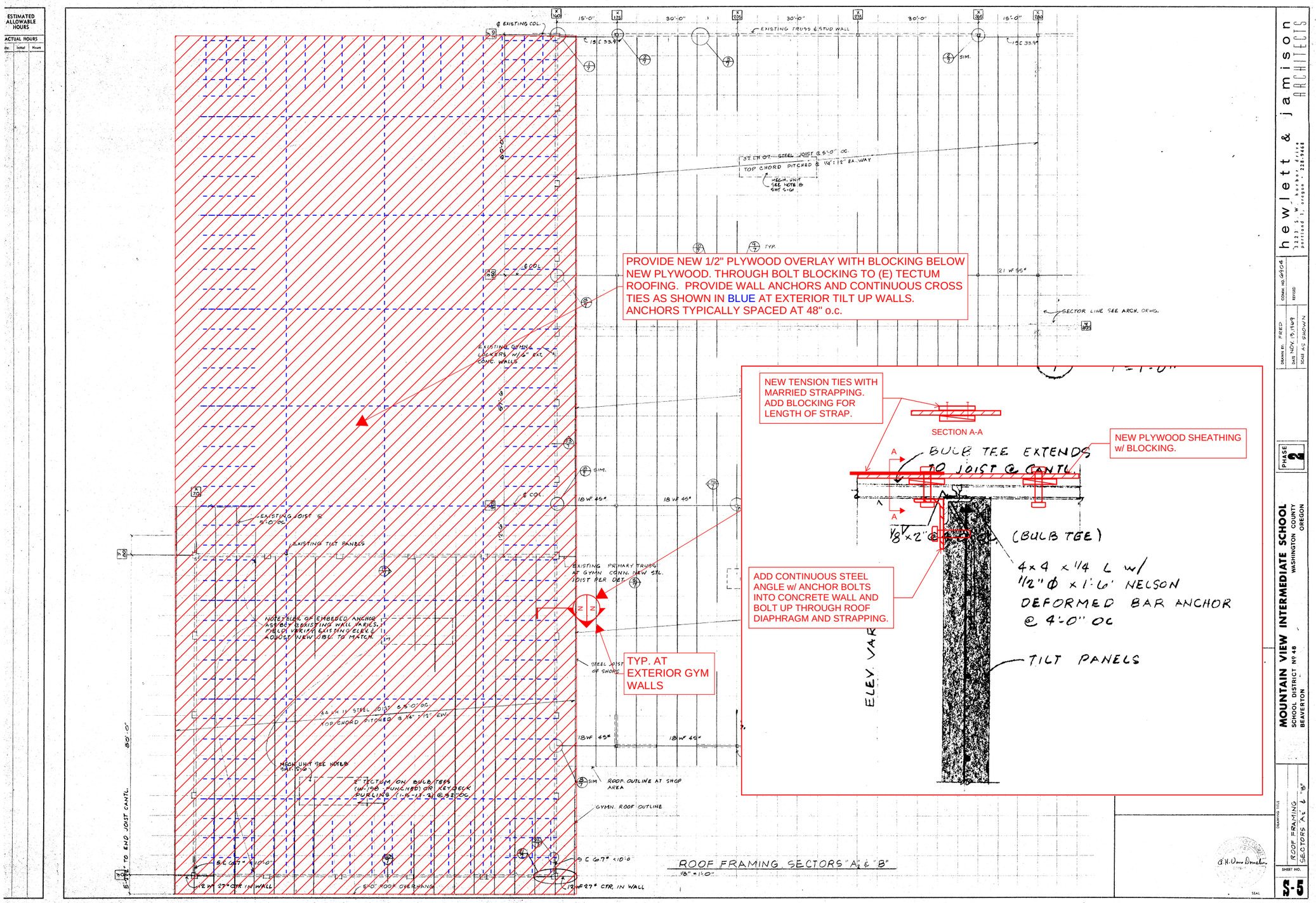
39 - Meadow Park Middle School


EXISTING CONCRETE FRAMED CANOPIES ARE UNSTABLE UNDER SEISMIC LOADING
OPTION 1: DEMO EXISTING CANOPIES AND CONSTRUCT NEW CANOPY(IES) THAT CAN WITHSTAND SEISMIC FORCES. ESTIMATE AS A NEW STEEL CANOPY STRUCTURE WITH STEEL DECKING SIMILAR TO SIZE OF CURRENT CANOPIES.
OPTION 2: INCREASE SIZE OF EXISTING FOOTINGS BY ADDING EXTENSIONS ON ALL FOUR SIDES. USE ADHESIVE DOWELS TO CONNECT THE NEW CONCRETE TO EXISTING.
SECTION B S10
SECTION A S10
10'-0"
2'-4"
18'-0"
hewlett & jamison ARCHITECTS
BEAVERTON JUNIOR HIGH SCHOOL
SCHOOL DISTRICT NO. 48
WASHINGTON COUNTY OREGON
NEAR BEAVERTON
SECTOR "C" FOUNDATION PLAN
S3

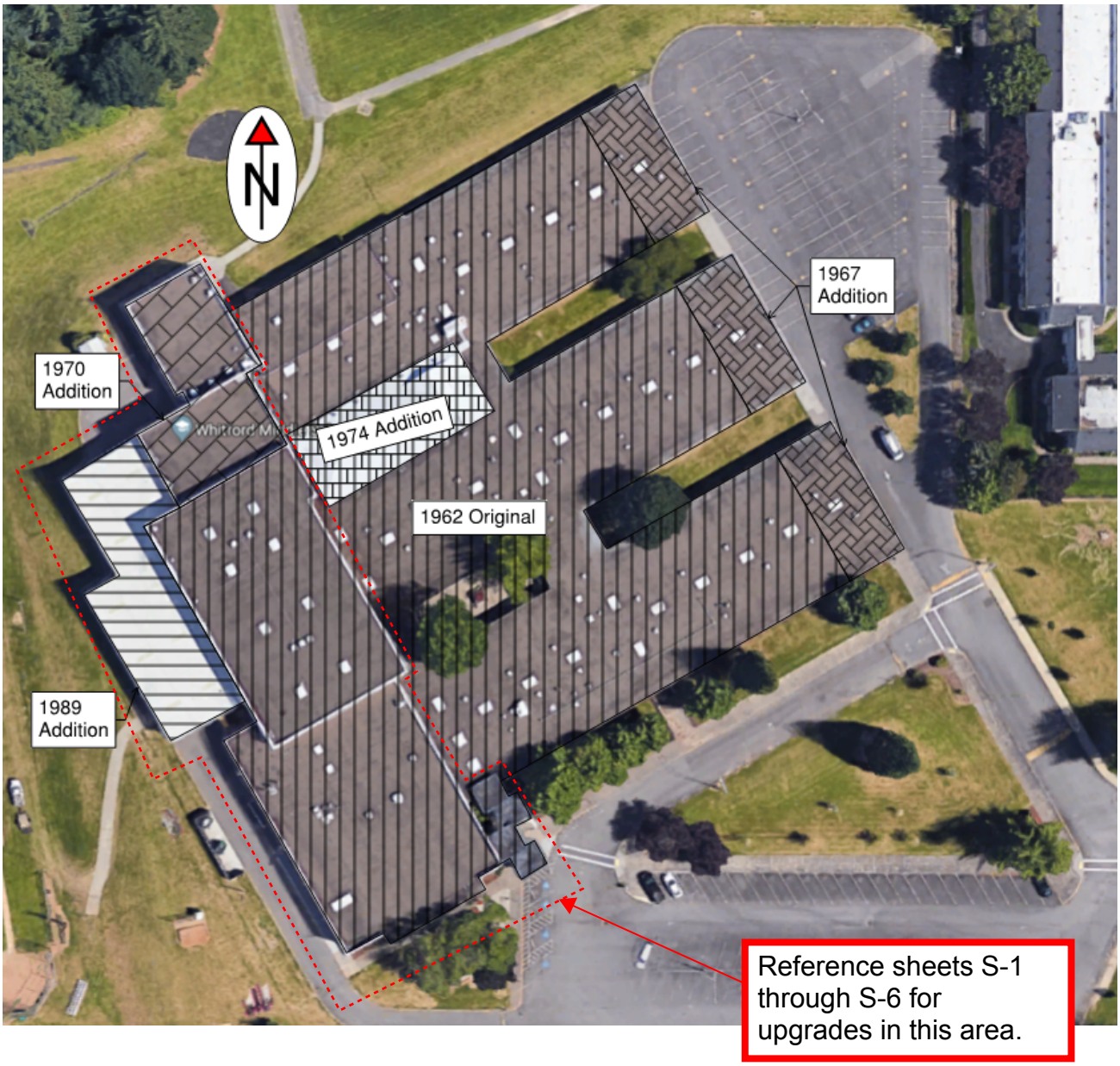


40 - Mountain View Middle School

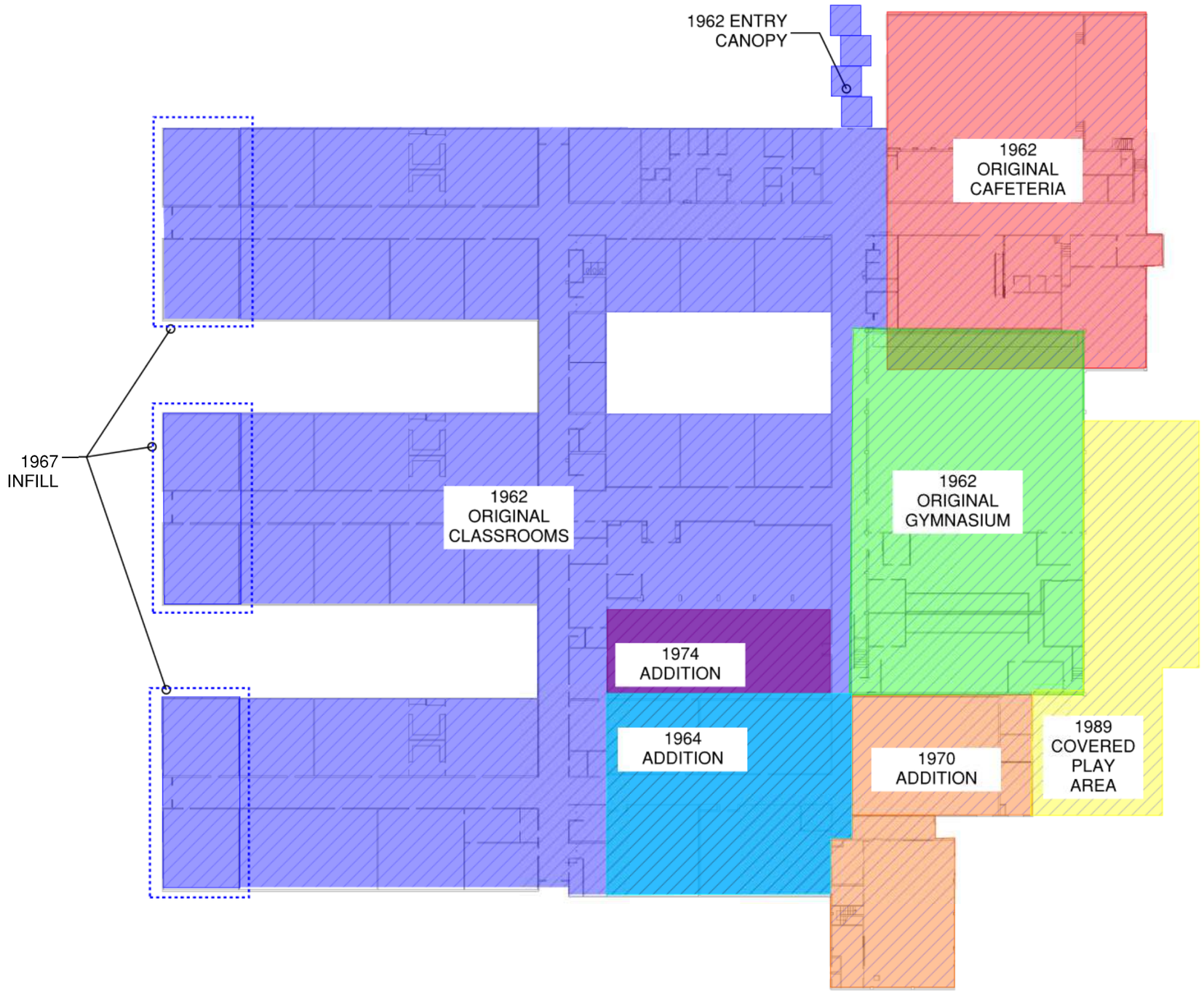

PROVIDE COMPLETE LOAD PATH:
PROVIDE STEEL ANGLES FOR SHEAR TRANSFER AT LOCATIONS SHOWN IN RED, REFERENCE DETAIL
STEEL ANGLE WITH ANCHORS TO SLAB AND WALL
TILT WALL FOOTING
3/4" = 1'-0"
TILT WALL
POUR STRIP
EXT. CONC. SEE ARCH.
GRAVEL
GROUT
SEE PLAN
FOUNDATION PLAN SECTORS A2 & B
1/8" = 1'-0"
SEE GENERAL NOTES SHT. S-1
SEE FOOTING SCHED. SHT S-4
EXISTING CONC. WALL & FOOTING
ISOLATION JT. @ EXISTING WALL
4" CONC. SLAB 6" GRAVEL BASE 6x6 10/10 WWM ELEV. 224.48
TYP. TILT PANEL DETAILS SEE SHT. S-8
4'-0" x 1'-4" FTG.
3'-0" x 12" FTG.
FACE OF WALL
SECTOR DIVISION LINES SEE ARCH.
SECTORS C & D SEE SHEET S-3
SHADED SLAB DEPRESSED 3/4"
4" CONC. SLAB 6x6 10/10 WWM 6" GRAVEL BASE ELEV. 224.50
THICKEN SLAB TO 5" & DOWEL FOR BRICK WALLS @ WELDING BOOTHS
TO FACE OF BRICK
END OF BRICK WALL
9" STEM FOR 9" RBM WALL ABOVE
4" SLAB ON 6" GRAVEL
1'-6" x 10" FTG. W/ 2#4 T&B.
ESTIMATED ALLOWABLE HOURS
ACTUAL HOURS
hewlett & jamison ARCHITECTS
MOUNTAIN VIEW INTERMEDIATE SCHOOL
SCHOOL DISTRICT No 48
BEAVERTON
WASHINGTON COUNTY
OREGON
PHASE 2
FOUNDATION PLAN SECTORS A2 & B
S-2



ROOF FRAMING SECTORS "A" & "B"
1/8" = 1'-0"



43 - Whitford Middle School



1 S-1 **BUILDING YEAR PLAN**

N.T.S

TRUE NORTH

PLAN NORTH

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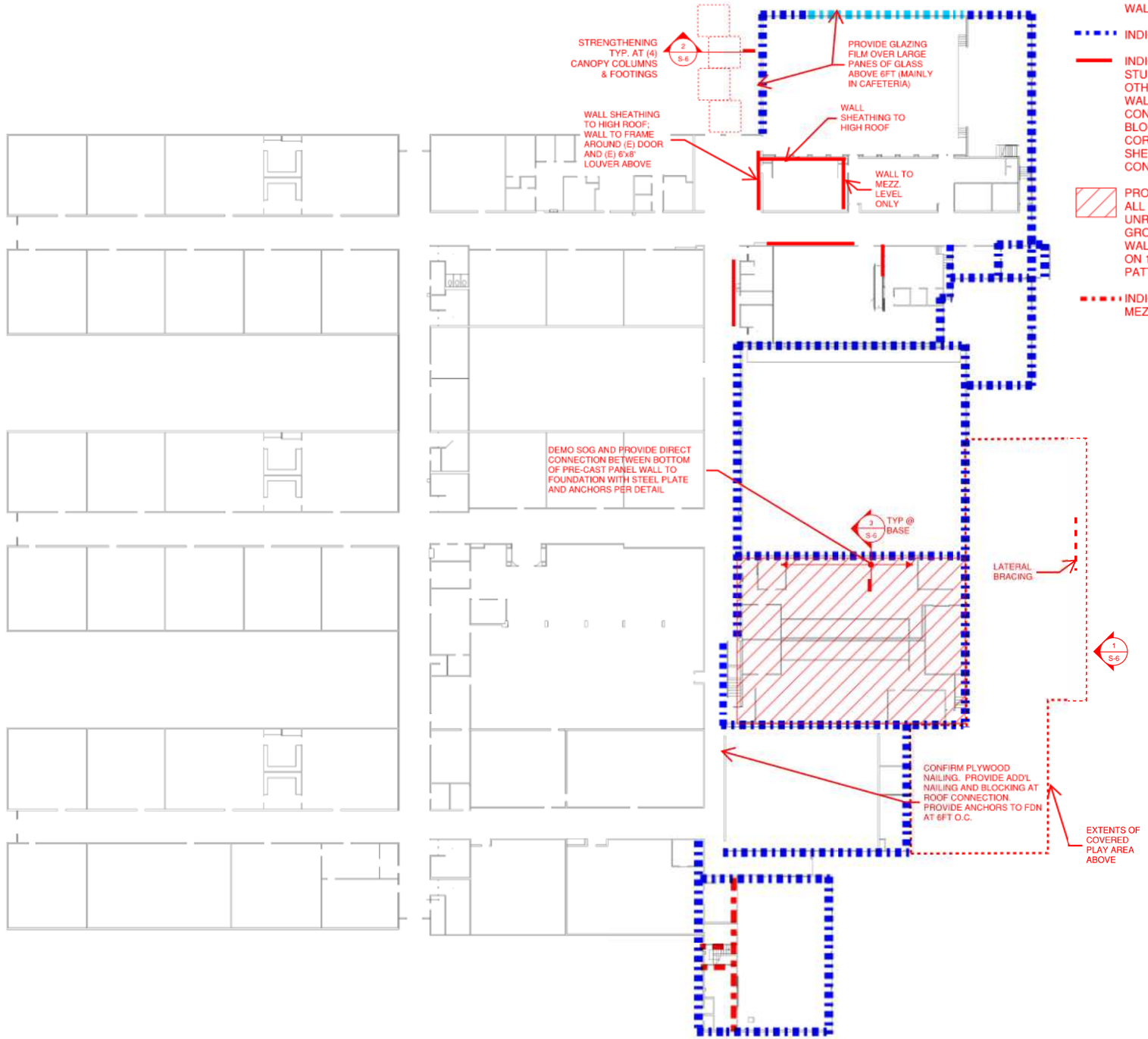
DRAWN

PROJECT No.

DRAWING TITLE

BUILDING YEAR PLAN

S-1



LEGEND

- INDICATES PARTIAL HEIGHT CONCRETE STEM WALL.
- INDICATES FULL HEIGHT CONCRETE WALL.
- INDICATES NEW PLYWOOD SHEATHING ON (E) 2X STUD WALL. SINGLE-SIDED UNLESS NOTED OTHERWISE. PROVIDE HOLD DOWNS EACH END OF WALL TO (E) FOUNDATION BELOW, ANCHORS TO (E) CONCRETE SLAB ON GRADE AT 4FT O.C. PROVIDE BLOCKING/NAILING TO ROOF DIAPH. IN CORRIDORS PROVIDE 1/2" SURE-BOARD SHEATHING IN LIEU OF PLYWOOD FOR CONSISTENT WALL SURFACE.
- PROVIDE BRACING FOR ALL WALLS IN THIS AREA. ALL WALLS IN LOCKER ROOM AREA ARE UNREINFORCED 4-6" BLOCK WALLS WITH NO GROUT. EITHER REPLACE WITH METAL STUD WALLS OR PROVIDE METAL STUD WALL BRACING ON 1 SIDE WITH HELIFIX ANCHORS AT 16"X24" PATTERN TO (E) WALL.
- INDICATES (E) CMU WALL TO RAIL HEIGHT ABOVE MEZZANINE.

1 S-2 **LEVEL 1 PLAN**

N.T.S

TRUE NORTH PLAN NORTH

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LEVEL 1 PLAN

S-2

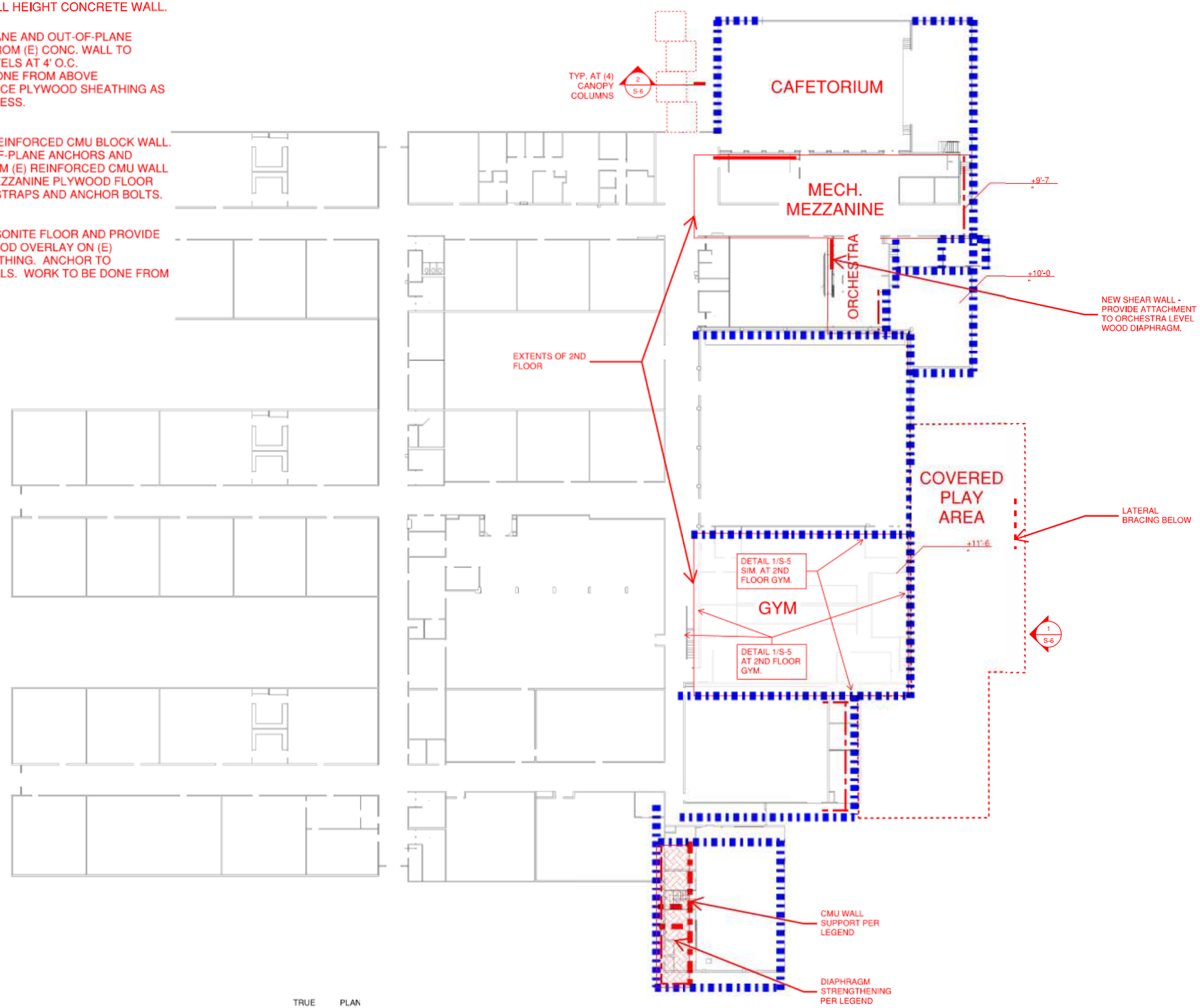
LEGEND

INDICATES FULL HEIGHT CONCRETE WALL.

PROVIDE IN-PLANE AND OUT-OF-PLANE ANCHORAGE FROM (E) CONC. WALL TO MEZZANINE LEVELS AT 4' O.C.
WORK TO BE DONE FROM ABOVE
REMOVE/REPLACE PLYWOOD SHEATHING AS REQ'D FOR ACCESS.

INDICATES (E) REINFORCED CMU BLOCK WALL. PROVIDE OUT-OF-PLANE ANCHORS AND STRAPPING FROM (E) REINFORCED CMU WALL TO STORAGE MEZZANINE PLYWOOD FLOOR WITH SIMPSON STRAPS AND ANCHOR BOLTS.

REMOVE (E) MASONITE FLOOR AND PROVIDE NEW 3/8" PLYWOOD OVERLAY ON (E) STRAIGHT SHEATHING. ANCHOR TO PERIMETER WALLS. WORK TO BE DONE FROM ABOVE.



1 / S-3 **SECOND FLOOR / MEZZ. PLAN**

N.T.S

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PLAN NORTH

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PROJECT No.

DRAWING TITLE

SECOND FLOOR / MEZZ. PLAN

S-3

LEGEND

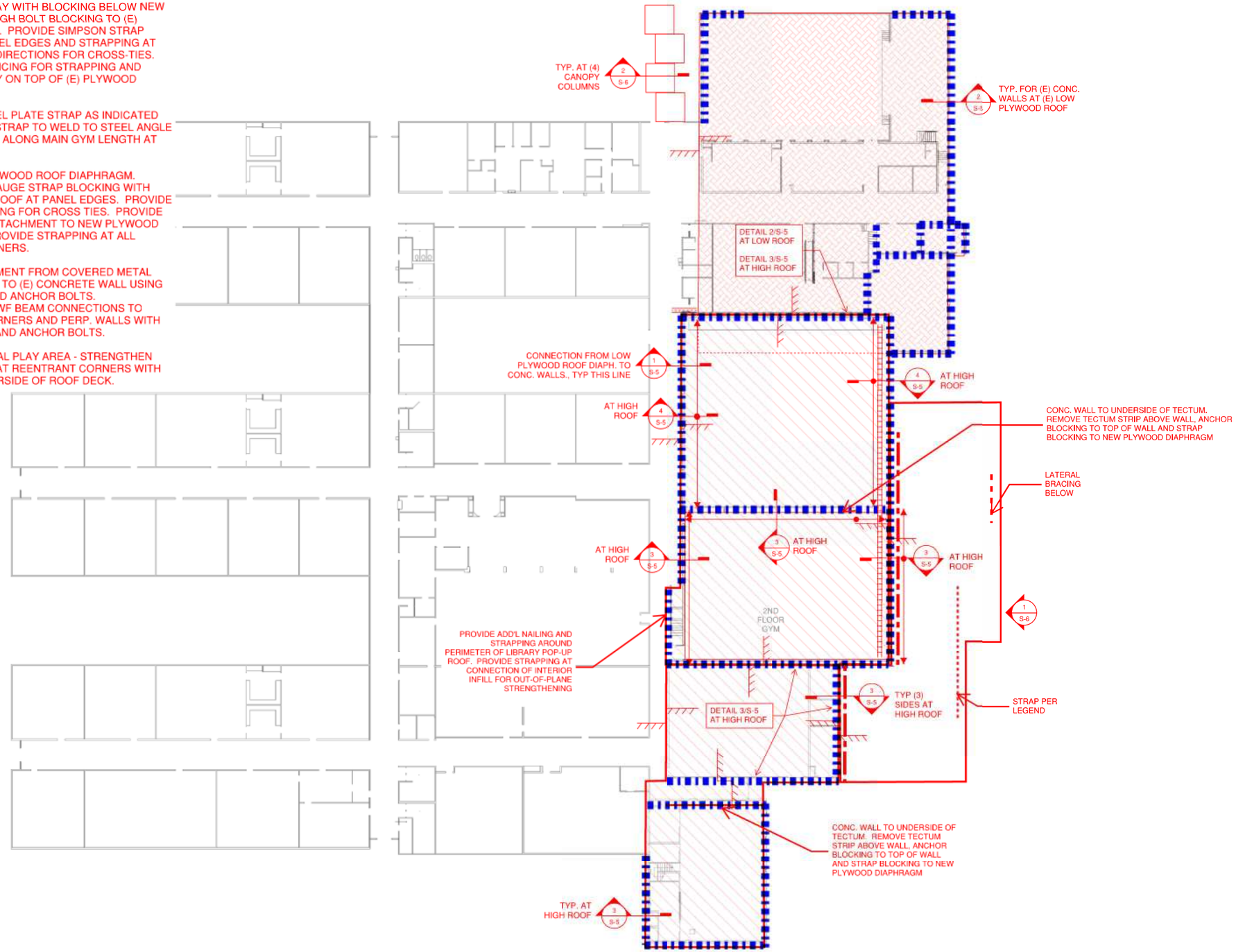
INDICATES (E) TECTUM ROOF. PROVIDE NEW 1/2" PLYWOOD OVERLAY WITH BLOCKING BELOW NEW PLYWOOD. THROUGH BOLT BLOCKING TO (E) TECTUM ROOFING. PROVIDE SIMPSON STRAP BLOCKING AT PANEL EDGES AND STRAPPING AT 9FT O.C. IN BOTH DIRECTIONS FOR CROSS-TIES. **PROVIDE ALT PRICING FOR STRAPPING AND ANCHORAGE ONLY ON TOP OF (E) PLYWOOD OVERLAY.**

PROVIDE 1/4" STEEL PLATE STRAP AS INDICATED ON PLAN. PLATE STRAP TO WELD TO STEEL ANGLE BOLTED TO CONC. ALONG MAIN GYM LENGTH AT INTERVALS

INDICATES (E) PLYWOOD ROOF DIAPHRAGM. PROVIDE LIGHT GAUGE STRAP BLOCKING WITH STAPLES ABOVE ROOF AT PANEL EDGES. PROVIDE SIMPSON STRAPPING FOR CROSS TIES. PROVIDE BLOCKING AND ATTACHMENT TO NEW PLYWOOD SHEAR WALLS. PROVIDE STRAPPING AT ALL RE-ENTRANT CORNERS.

PROVIDE ATTACHMENT FROM COVERED METAL DECK DIAPHRAGM TO (E) CONCRETE WALL USING STEEL ANGLES AND ANCHOR BOLTS. STRENGTHEN (E) WF BEAM CONNECTIONS TO PILASTERS AT CORNERS AND PERP. WALLS WITH WELDED PLATES AND ANCHOR BOLTS.

AT COVERED METAL PLAY AREA - STRENGTHEN GUAGE FRAMING AT REENTRANT CORNERS WITH STRAPS ON UNDERSIDE OF ROOF DECK.



1 S-4 **ROOF PLAN**

N.T.S

TRUE NORTH

PLAN NORTH

11/20/2013 9:01:14 AM
File Path

STRUCTURAL ENGINEER

Holmes

Holmes Structures
235 Montgomery St, STE 1250
San Francisco, CA 94104 USA
415 693 1600
holmesstn.clares.com

STAMP

NOT FOR CONSTRUCTION

PROJECT NAME / LOCATION

Whitford Middle School
7935 SW Scholls Ferry Rd
Beaverton, OR 97008
Beaverton School District
Seismic Strengthening Scheme

ISSUE / REVISION

No.	DESCRIPTION	DATE
	SEISMIC UPGRADE SCHEME	1/16/2020

SCALE N.T.S.

S.E.R.

DESIGN

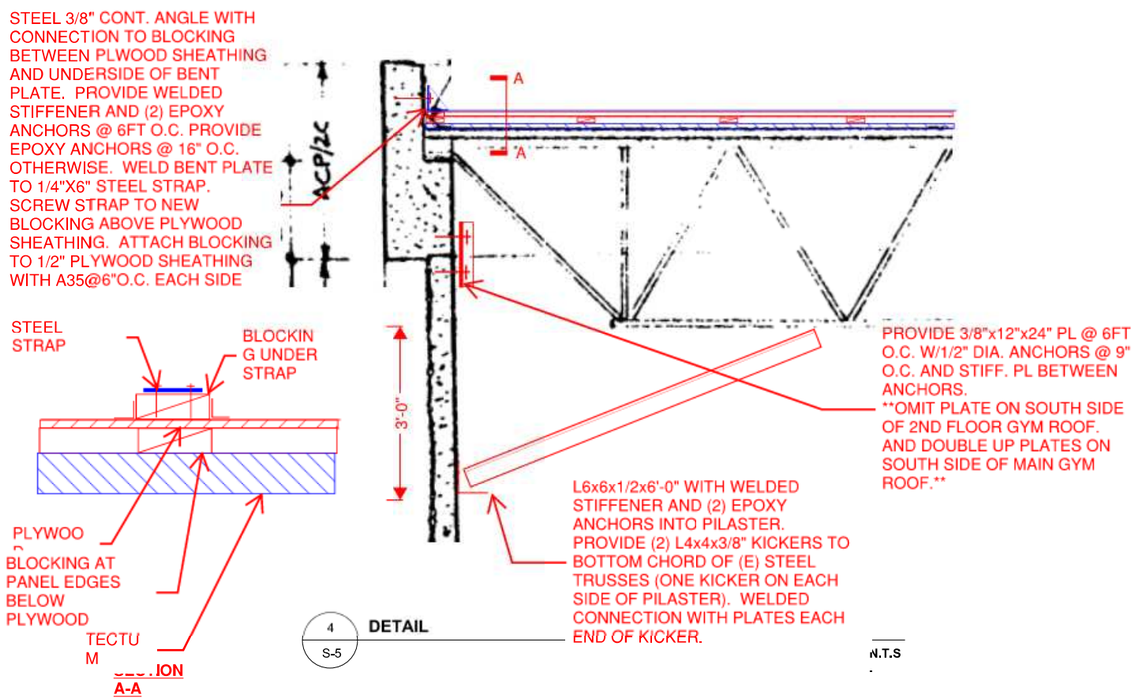
DRAWN

PROJECT No.

DRAWING TITLE

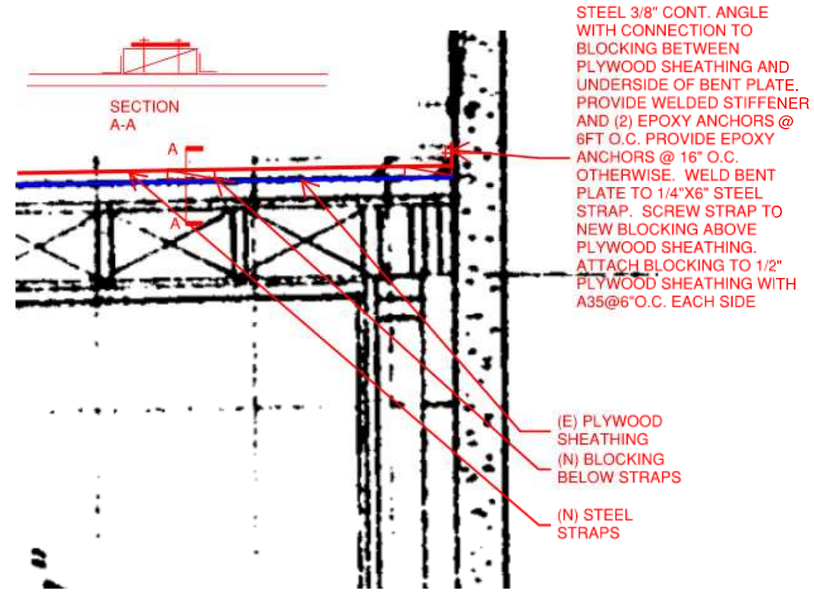
ROOF PLAN

S-4



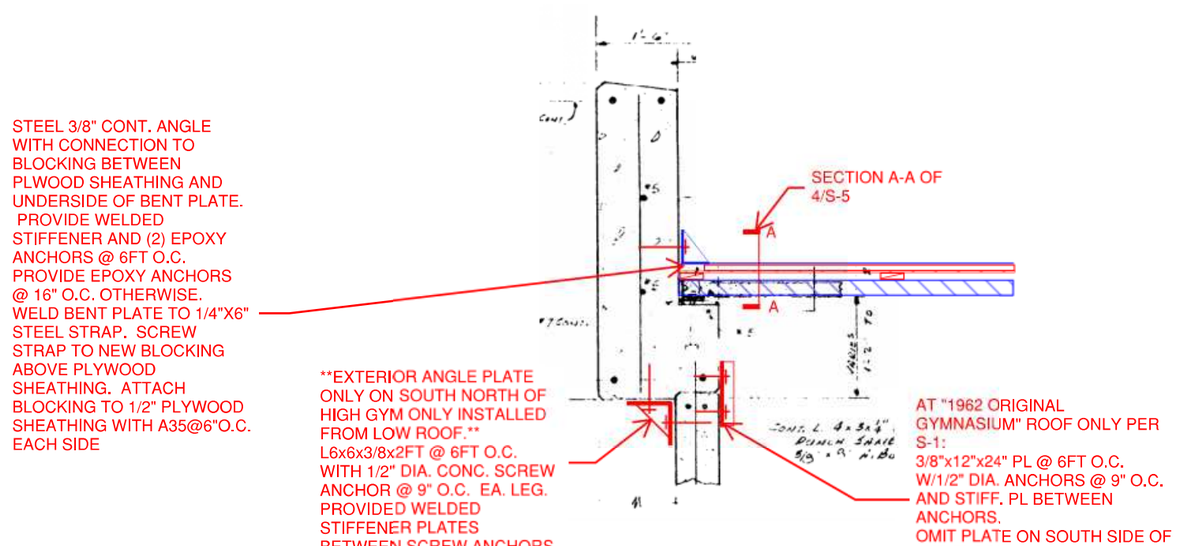
4 S-5 DETAIL

N.T.S



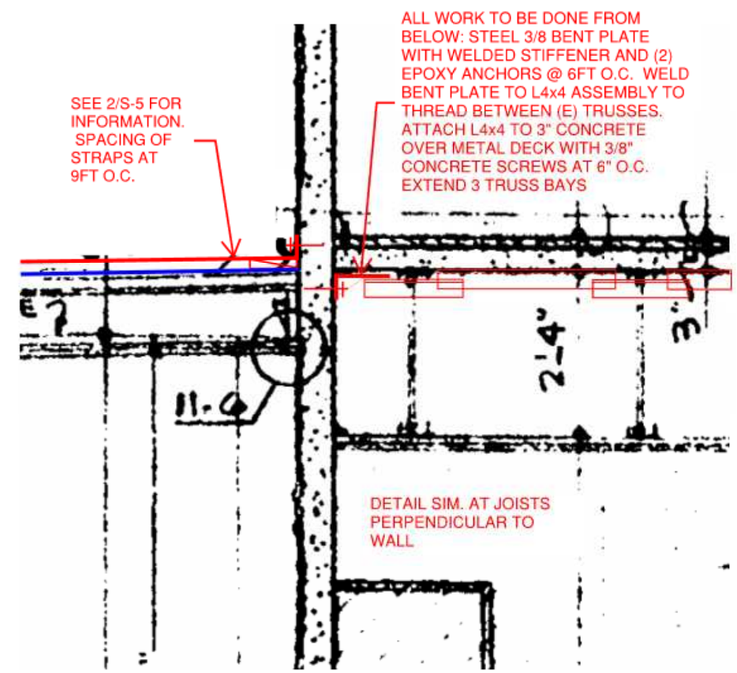
2 S-5 DETAIL

N.T.S



3 S-5 DETAIL

N.T.S



1 S-5 DETAIL

N.T.S

STRUCTURAL ENGINEER

Holmes

Holmes Structures
235 Montgomery St., STE 1260
San Francisco, CA 94104 USA
415 693 1600
holmesstr.clarus.com

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Beaverton School District
Seismic Strengthening Scheme

ISSUE / REVISION

No.	DESCRIPTION	DATE
	SEISMIC UPGRADE SCHEME	1/16/2020

SCALE N.T.S.

S.E.R.

DESIGN

DRAWN

PROJECT No.

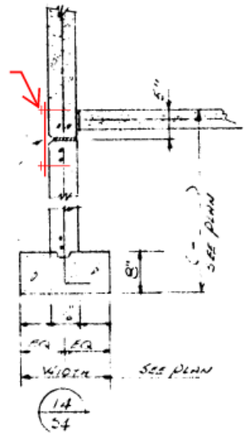
DRAWING TITLE

PRECAST DETAILS

S-5

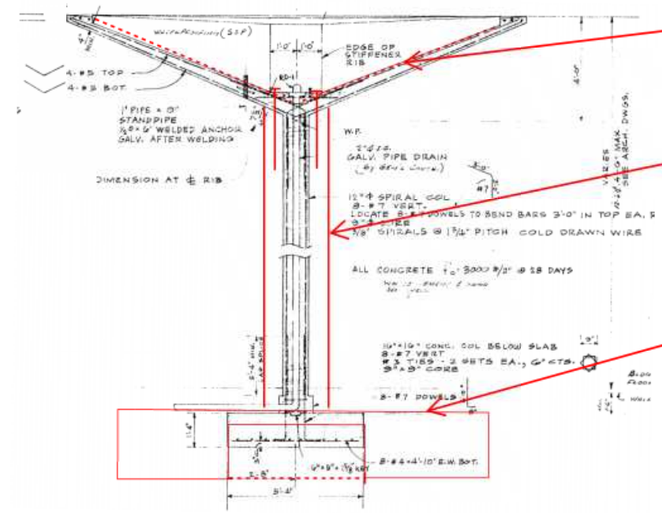
11/20/2013 9:01:14 AM
File Path

3/8" x14"x24" GALV. PLATE @4FT O.C. WITH (4) GALV. CONCRETE SCREW ANCHORS PER PLATE. LOCATE (E) REINF. BEFORE DRILLING



3 / S-6 **PRE-CAST WALL TO FDN DETAIL**

N.T.S



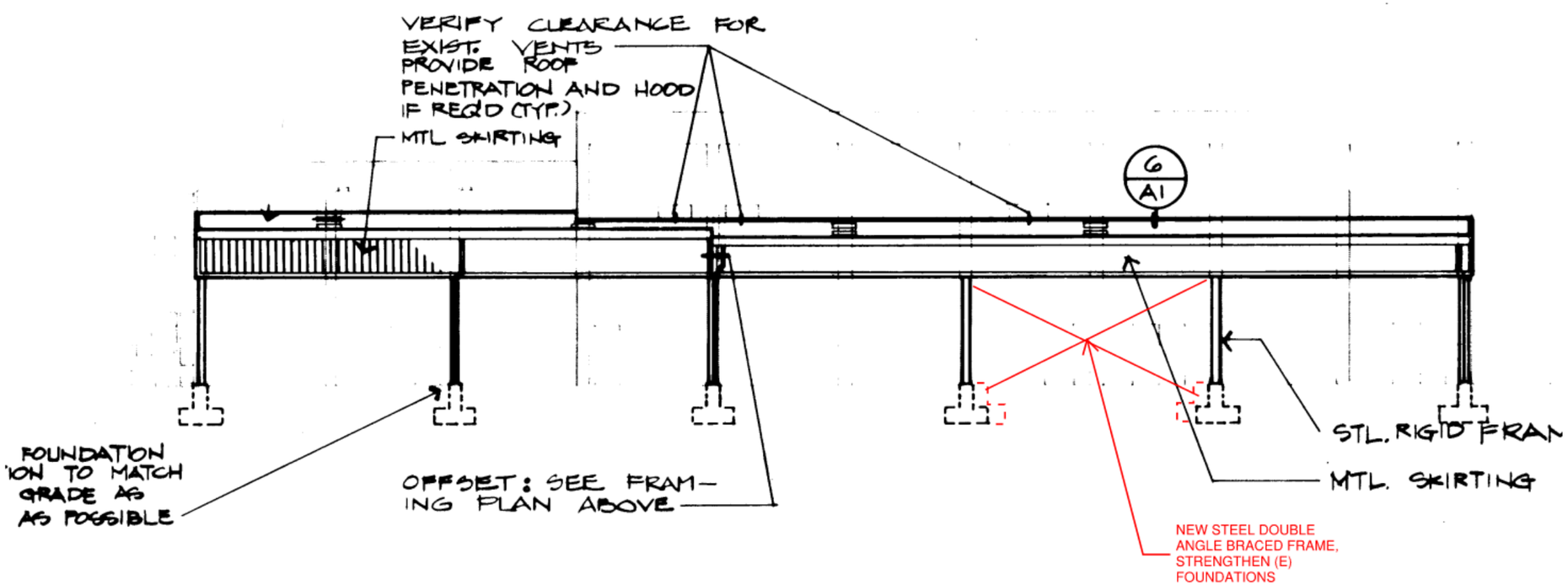
PROVIDE SINGLE LAYER FRP ON TOP OF CANOPY

PROVIDE NEW CONCRETE COLUMN AROUND (E) COL. NEW COL TO BE 24" IN DIAMETER. HOOK DOWEL INTO FOOTING AND PROVIDE GALVANIZED ANCHORS TO CANOPY.

STRENGTHEN AND EXTEND FOOTING TO BE 9FTx9FT. PROVIDE REINF IN FOOTING AND DOWEL TO EXISTING FOOTING ALL AROUND. DO NOT UNDERMINE (E) FOOTING BUT PROVIDE PERIMETER FOOTING EXPANSION. DEMO TOP 6" OF (E) FOOTING FOR NEW TOP REINF.

2 / S-6 **COVERED ENTRY WALKWAY**

N.T.S



1 / S-6 ***COVERED PLAY AREA ELEVATION***

N.T.S

STRUCTURAL ENGINEER

Holmes

Holmes Structures
235 Montgomery St, STE 1260
San Francisco, CA 94104 USA
415 693 1600
holmesstn.clares.com

STAMP

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Beaverton, OR 97008
Beaverton School District
Seismic Strengthening Scheme

ISSUE / REVISION

No.	DESCRIPTION	DATE
	SEISMIC UPGRADE SCHEME	1/16/2020

SCALE N.T.S.

S.E.R.

DESIGN

DRAWN

PROJECT No.

DRAWING TITLE

COVERED PLAY AREA

S-6

11/20/2013 9:01:14 AM
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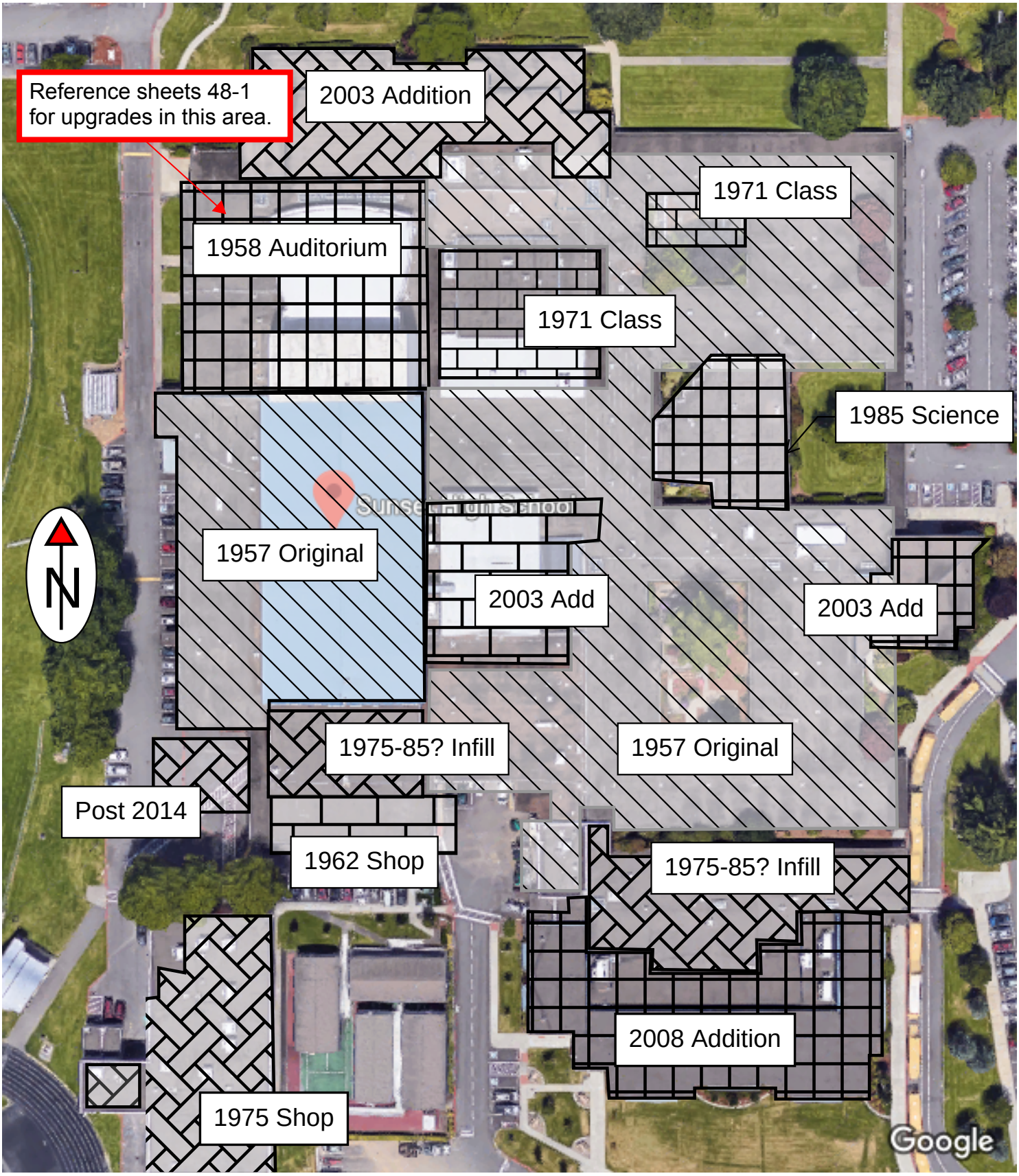
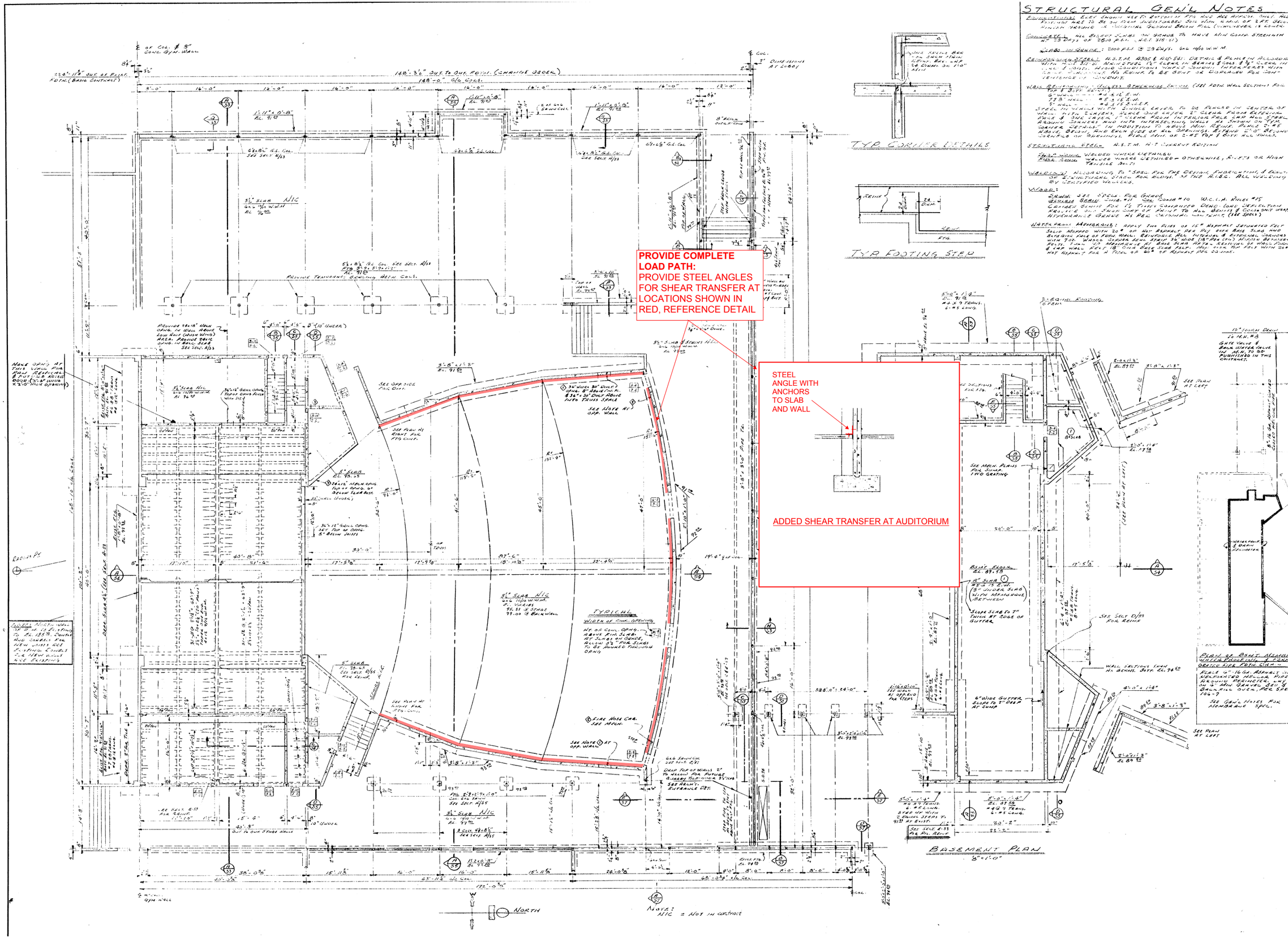


48 - Sunset High School



STRUCTURAL GEN'L NOTES

FOUNDATIONS: ALL SHOWN REF TO BOTTOM OF FTG AND ARE MINIMUM ONLY. ALL FOUNDATIONS MUST BE ON UNDISTURBED SOIL WITH A MINIMUM OF 2000 PSF BEARING CAPACITY. A TEMPORARY DECREASE IN BEARING CAPACITY WILL BE ALLOWED.

CONCRETE: ALL BELOW GRADE ON GRADE TO HAVE MIN COMP. STRENGTH AT 28 DAYS OF 2500 P.S.I. (A.C.I. 318-71)

SLABS ON GRADE: 2000 P.S.I. @ 28 DAYS. 6x6 10/10 W.W.M.

REINFORCING STEEL: A.S.T.M. A305 & A615-54. DETAIL & PLACE IN ACCORDANCE WITH A.C.I. 315-58. MIN. STEEL 1½" CLEAR IN BEAMS & COLS & ¾" CLEAR IN SLABS & WALLS. ALSO CONTROL WIRE & SPACERS IN FORMS PER ACI WITH CONCRETE. NO REBAR TO BE BENT OR DISPLACED FOR CONTINUANCE OF CONDUIT.

WALL REINFORCING: UNLESS OTHERWISE SHOWN (SEE FDTN. WALL SECTIONS FOR FOR 8" & 12" CONC.)
GROUND FLOOR: #4 @ 12 E.W.
TYP. WALL: #5 @ 12 E.W.
TOP WALL: #4 @ 12 E.W.
STEEL IN WALLS IN TWO EQUAL LAYERS TO BE PLACED IN CENTER OF WALL WITH SPACERS. PLACE OUTER LAYER 2" CLEAR FROM EXTERIOR FACE & INNER LAYER 1" CLEAR FROM INTERIOR FACE. LAP ALL STEEL REQUIRED CONTINUOUS IN WALL AS SHOWN ON PLAN. CORNER DETAILS IN ADDITION TO ABOVE MIN. REQ'D. PLACE 2-#5 HORIZ. BETWEEN FOOTING & FIRST FLOOR LEVEL AT ALL OPENINGS. LOCATE OF OPENINGS, PLACE MIN. OF 2-#5 TOP & BOTT. ALL SIDES.

STRUCTURAL STEEL: A.S.T.M. A-7 CURRENT EDITION

FIELD WORK: WELDED UNLESS DETAILED OTHERWISE.
FIELD CONN: WELDED UNLESS DETAILED OTHERWISE, RIVETS OR HIGH TENSILE BOLTS

WELDING: ACCORDING TO "SPEC. FOR THE DESIGN, FABRICATION, & EREECTION OF STRUCTURAL STEEL FOR BLDGS." OF THE A.I.S.C. ALL WELDING BY CERTIFIED WELDERS.

WOOD:
SAWN: SEE SPECS. FOR GRADE
WEATHER BOARD: CONC. #11 CONC. COMM #10 W.C.L.A. RULES #15
COVERED BOARD FOR 1½ TIMES COMPUTED DEND. LOAD DEFLECTION
PROTECT ALL FRAM UNIT OF ABOVE TO ALL BOARDS & COVER UNIT WRAPPING REFERENCE GRADE AS REQ. CONTINUOUS WARRANTY (SEE SPECS)

WATER PROOF MEMBRANE: APPLY TWO PLIES OF 15# NEPHALT SATURATED FELT SOLID MOPPED WITH 20# OF HOT ASPHALT PER PLY OVER BASE SLAB AND EXTERIOR FACE OF FOUN WALL. REINFORCE ALL INTERNAL & EXTERNAL CORNERS WITH 72" WIDE TAPERED SEAL STRIP 36" WIDE (18" PER SIDE) MOPPED BETWEEN PLIES. TURN UP MEMBRANE AT BASE SLAB AFTER REMOVAL OF WALL FORMS & LAP WALL PLIES ONE COURSE EACH FACE. APPLY WITH FELT WITH 25# HOT ASPHALT FOR A TOTAL OF 60# OF ASPHALT PER SQUARE.

FREEMAN, HAYSLIP, TUFT & HEWLETT
ASSOCIATED ARCHITECTS
2040 S.W. THIRD AVE. PORTLAND, OREGON

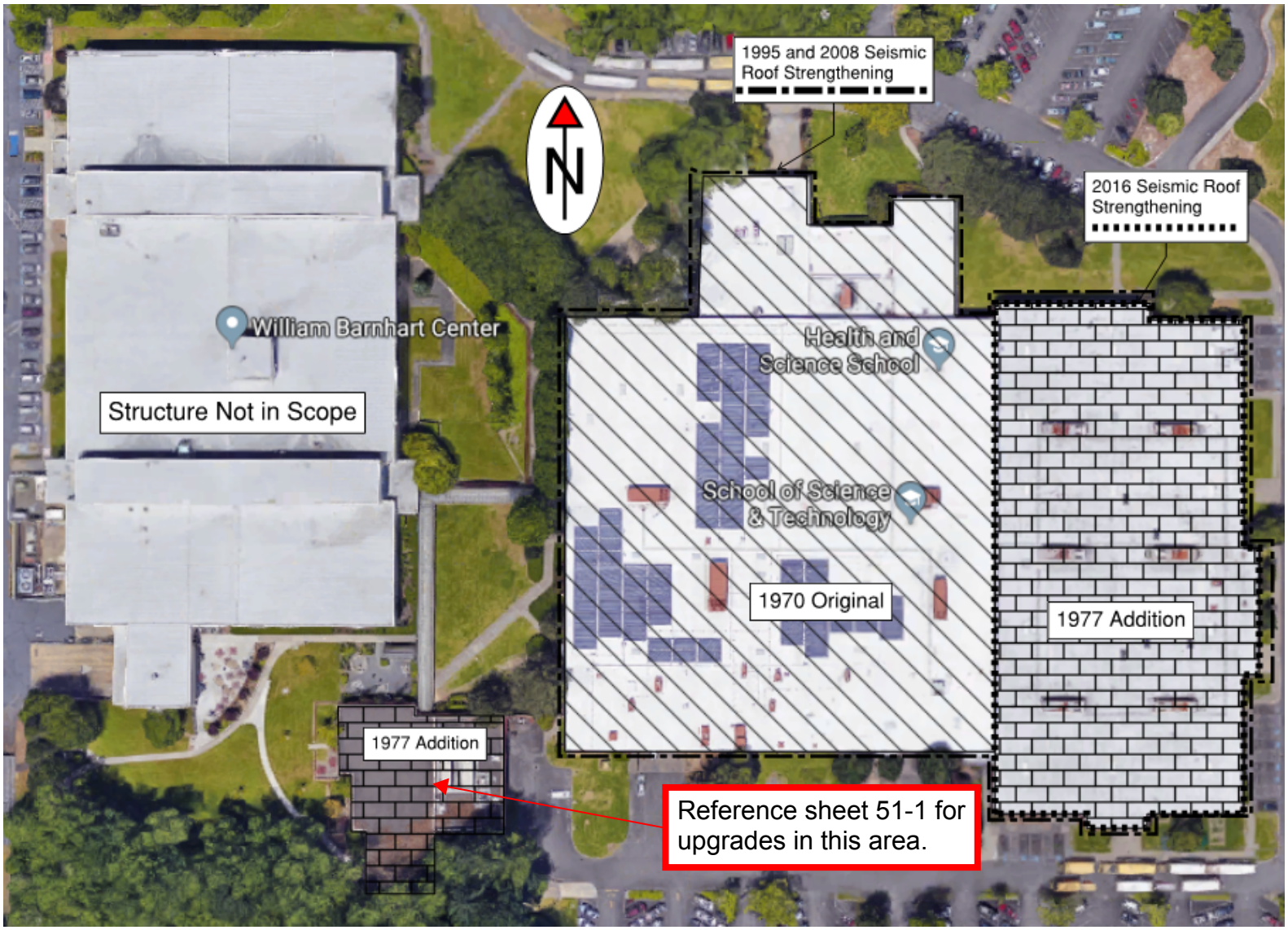
THE NEW BEAVERTON HIGH SCHOOL
SCHOOL DIST. U.H. 10-J
WASH. & MULT. COUNTY
BEAVERTON

DRAWING TITLE: FLOOR & FOUNDATION PLAN

SHEET NO. S1-X

CONTR. NO. 58-20
REVISED
DRAWN BY: M.K.
DATE 7-3-58
SCALE AS SHOWN

80933



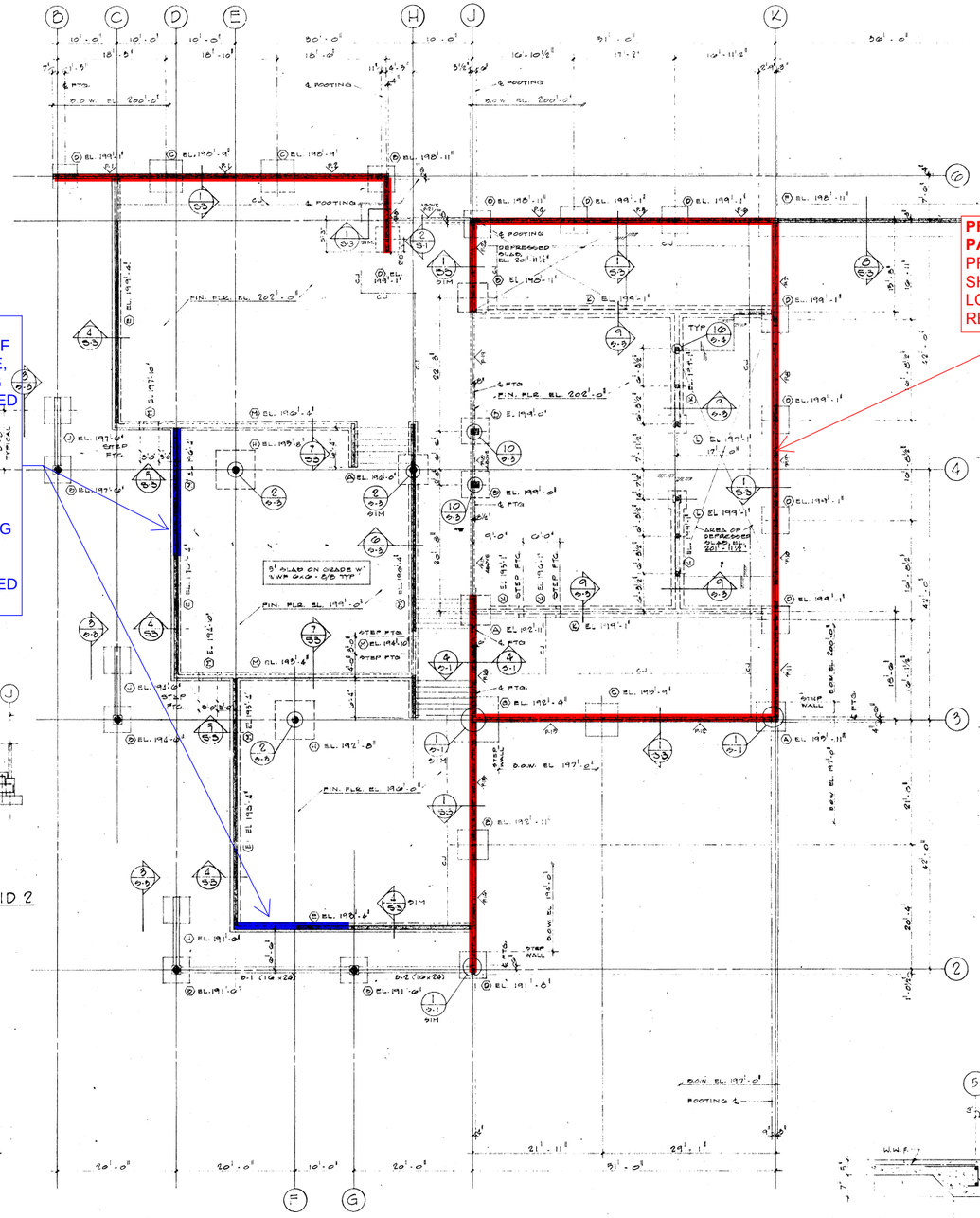
51 - Capitol Center

ADD NEW CONCRETE SHEAR WALLS AT LOCATIONS SHOWN IN BLUE. SHORE ROOF FRAMING, REMOVE EXISTING STRUCTURE, AND PROVIDE CONCRETE STRIP FOOTING BELOW. NEW FOOTINGS WILL BE DOWELED TO EXISTING SLAB-ON-GRADE.

OR

ADD NEW STEEL CONCENTRIC BRACED FRAMES AT LOCATIONS SHOWN IN BLUE. SHORE ROOF FRAMING, REMOVE EXISTING STRUCTURE, AND PROVIDE CONCRETE SPREAD FOOTINGS AND GRADE BEAM BELOW. NEW FOOTINGS WILL BE DOWELED TO EXISTING SLAB-ON-GRADE.

PROVIDE COMPLETE LOAD PATH:
PROVIDE STEEL ANGLES FOR SHEAR TRANSFER AT LOCATIONS SHOWN IN RED, REFERENCE DETAIL

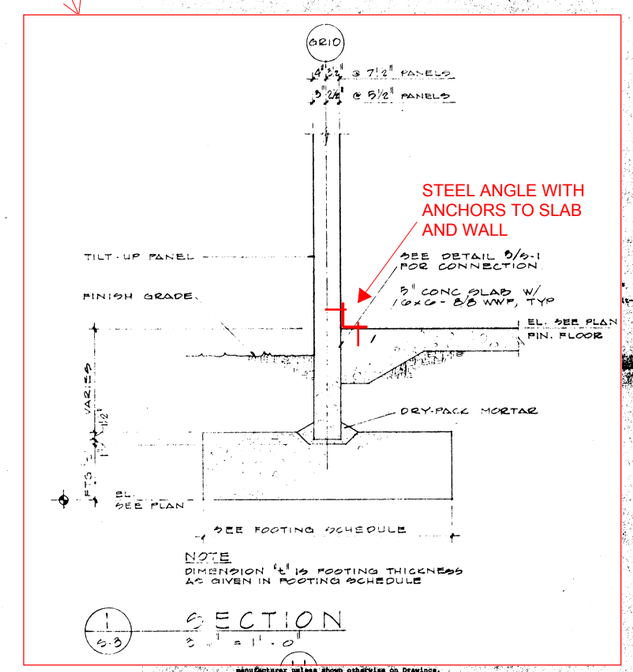


PLAN - FOUNDATION AND FLOOR
1/8" = 1'-0"

NOTES
○ EL. 000'-0" ..... DENOTES FOOTING TYPE (SEE SCHEDULE) AND FOOTING ELEVATION GIVEN AT BOTTOM OF FOOTING.
B.O.W. ..... DENOTES BOTTOM OF WALL PANEL ELEVATION
◇ ..... DENOTES WALL PANEL TYPE, SEE SHEET S-3
D.J. ..... DAWN JOINT
C.J. ..... COLD JOINT

FOOTING SCHEDULE

TYPE	SIZE	REINFORCEMENT	REMARKS
(A)	5'-0" x 5'-0" x 12"	7-#4 x 4'-0" E.W. BOT.	
(B)	4'-0" x 4'-0" x 12"	5-#5 x 4'-0" E.W. BOT.	
(C)	5'-0" x 5'-0" x 12"	7-#4 x 5'-0" E.W. BOT.	
(D)	4'-0" x 4'-0" x 10"	6-#5 x 3'-6" E.W. BOT.	
(E)	1'-4" x 8" x CONT	3-#4 x CONT. LONGIT	SEE SEC. 6/S-3
(F)	5'-0" x 2'-0" x 18"/12"	7-#4 x 5'-0" E.W. BOT. & PRECAST	SEE SECTION FOR REMAIN REINF. 6/S-3 1'-0" UNDER PRECAST
(G)	7'-0" x 7'-0" x 19"	8-#8 x 7'-0" E.W. BOT.	
(H)	6'-0" x 6'-0" x 18"	8-#7 x 6'-0" E.W. BOT.	
(J)	4'-0" x 4'-0" x 12"	5-#4 x 4'-0" E.W. T&B	SEE SEC. 6/S-3
(K)	2'-0" x 10" - CONT.	3-#5 - CONT. - LONGIT	SEE SEC 6/S-3
(L)	3'-0" x 3'-0" x 10"	3-#4 x 2'-0" E.W. BOT.	
(M)	1'-0" x 8" - CONT.	3-#4 - CONT. - LONGIT	SEE SEC. 6/S-3 8/S-3 7/S-3

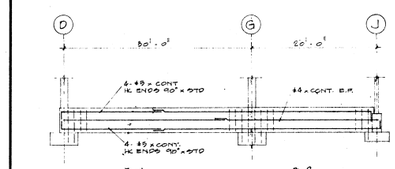


NOTE
DIMENSION 'E' IS FOOTING THICKNESS AS GIVEN IN FOOTING SCHEDULE

1/S-3 SECTION
3/4" = 1'-0"

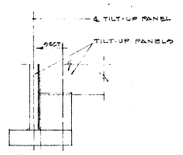
manufacturer unless shown otherwise on Drawings.

11. Precast tilt-up wall panels
a. No reinforcement has been provided for lifting or bracing loads. Submit design for additional reinforcement and pick-up points.
b. Cast wall panels interior face down.

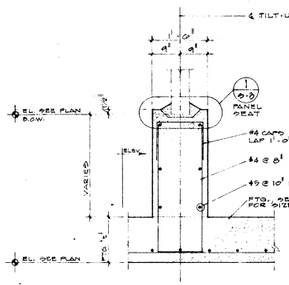


STIRR (B-1 & B-2): #4 □ 1 @ 6" EE, FILL @ 12"
EXTEND STIRR INTO FOOTINGS AS SHOWN

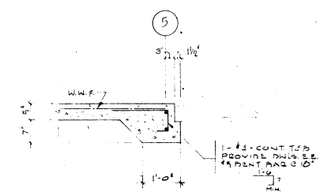
ELEVATION - GRADE BEAM ON GRID 2
NO SCALE



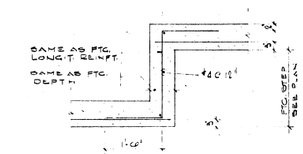
ELEVATION
1/8" = 1'-0"



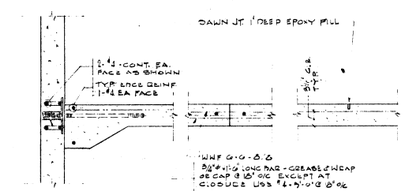
1/S-1 SECTION
3/4" = 1'-0"



2/S-1 SLAB EDGE



3/S-1 FOOTING STEP



EDGE JOINT — COLD JOINT (C.J) — DAWN JOINT (D.J)
ALTERNATE DETAIL DEMAY "ZIP-STRIP"

4/S-1 SLAB JOINT DETAILS

DATE OCTOBER 21, 1977
JOB NO. 3015-02

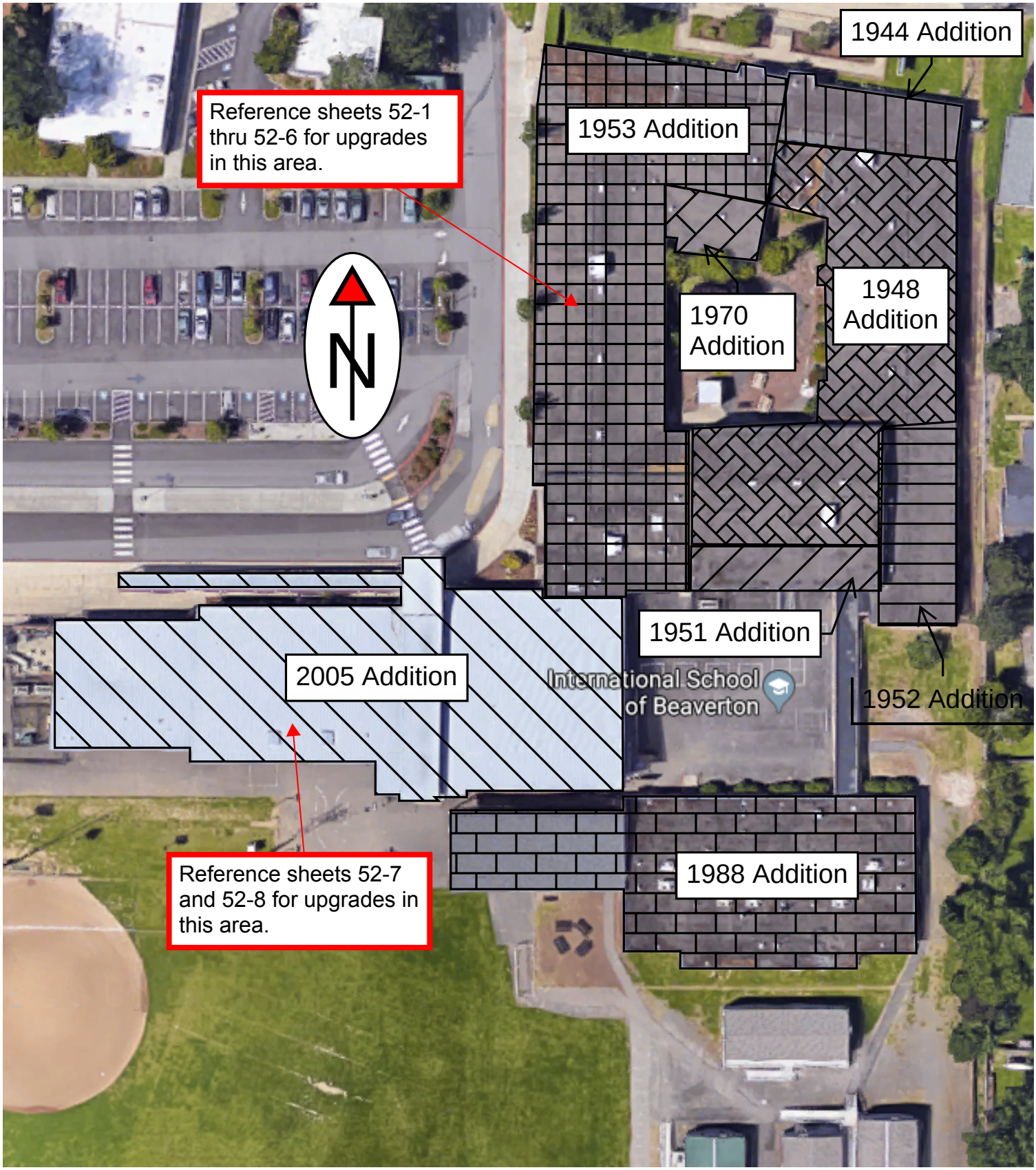
ZIMMER-GUNSUL-FRASCA PARTNERSHIP
ARCHITECTS, A.I.A.
111 S.W. OAK
PORTLAND, OREGON 97204

PLAN - FOUNDATION AND FLOOR
WALKER ROAD 96 CAFETERIA
TEXTRONIX INC.
BEAVERTON, OREGON

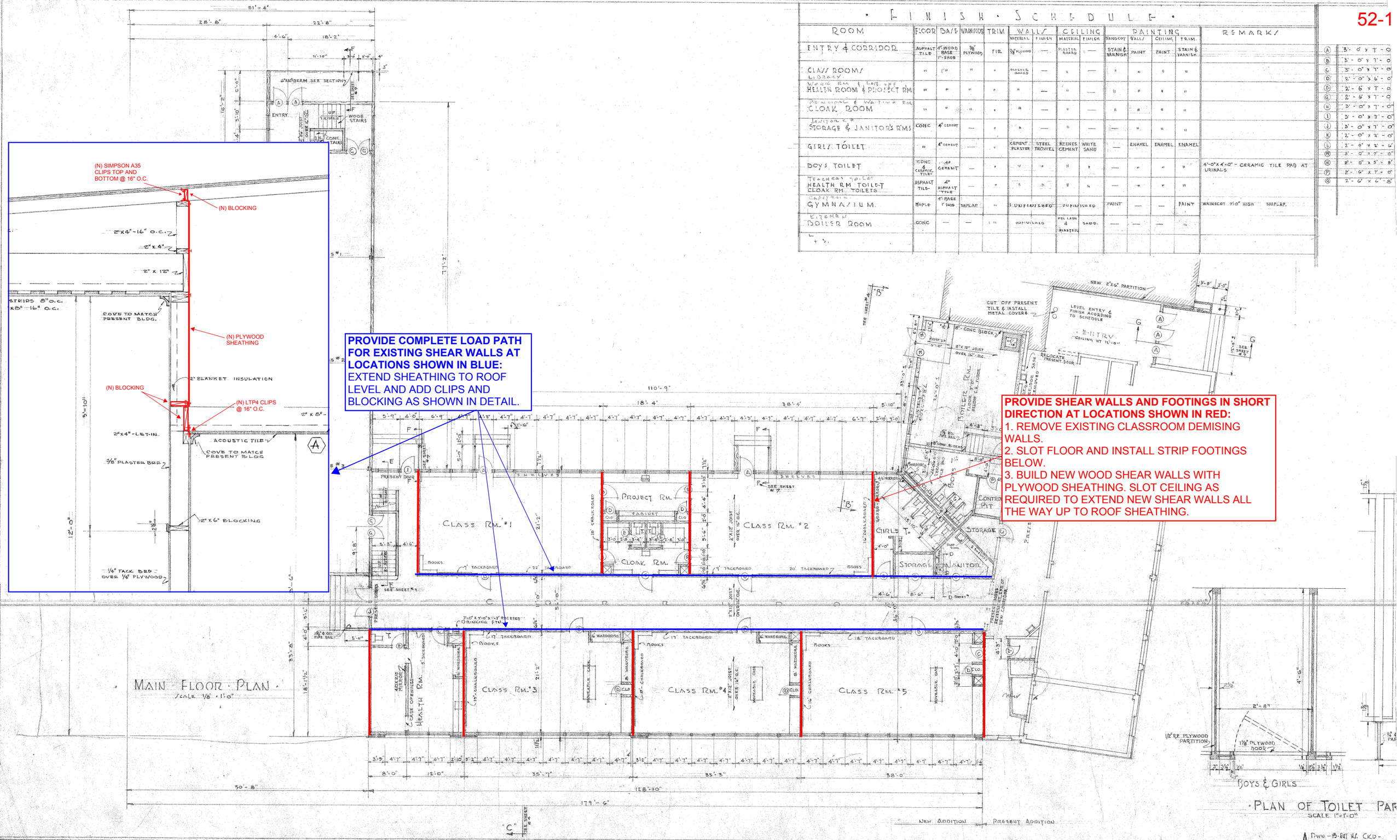
REGISTERED ARCHITECT
NORMAN F. ZIMMER
PORTLAND, OREGON
STATE OF OREGON

S1
OF 5 SHEETS

CAMPBELL-WEISS REPROGRAPHICS



52 - International School



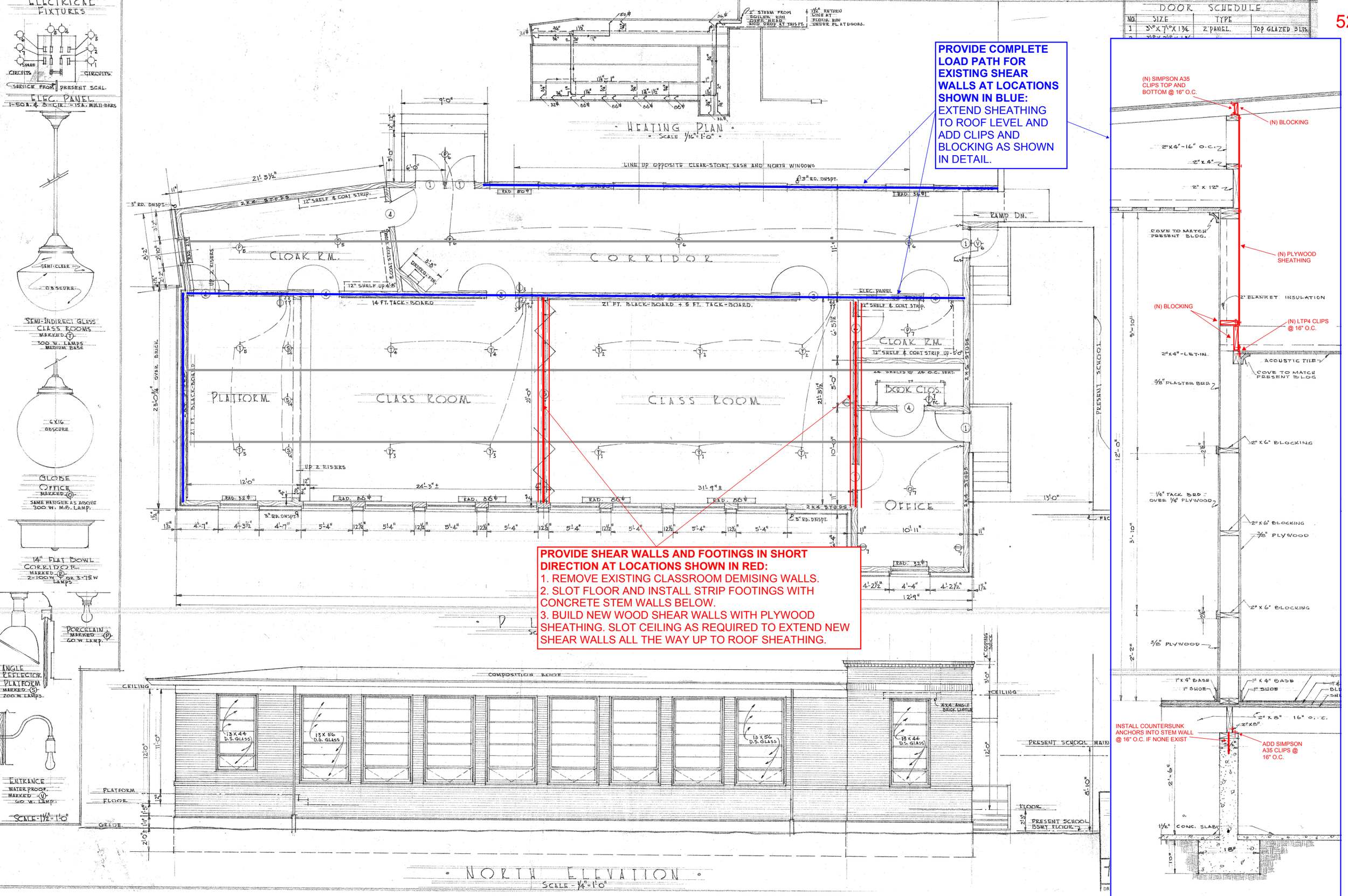
PROVIDE COMPLETE LOAD PATH FOR EXISTING SHEAR WALLS AT LOCATIONS SHOWN IN BLUE:
EXTEND SHEATHING TO ROOF LEVEL AND ADD CLIPS AND BLOCKING AS SHOWN IN DETAIL.

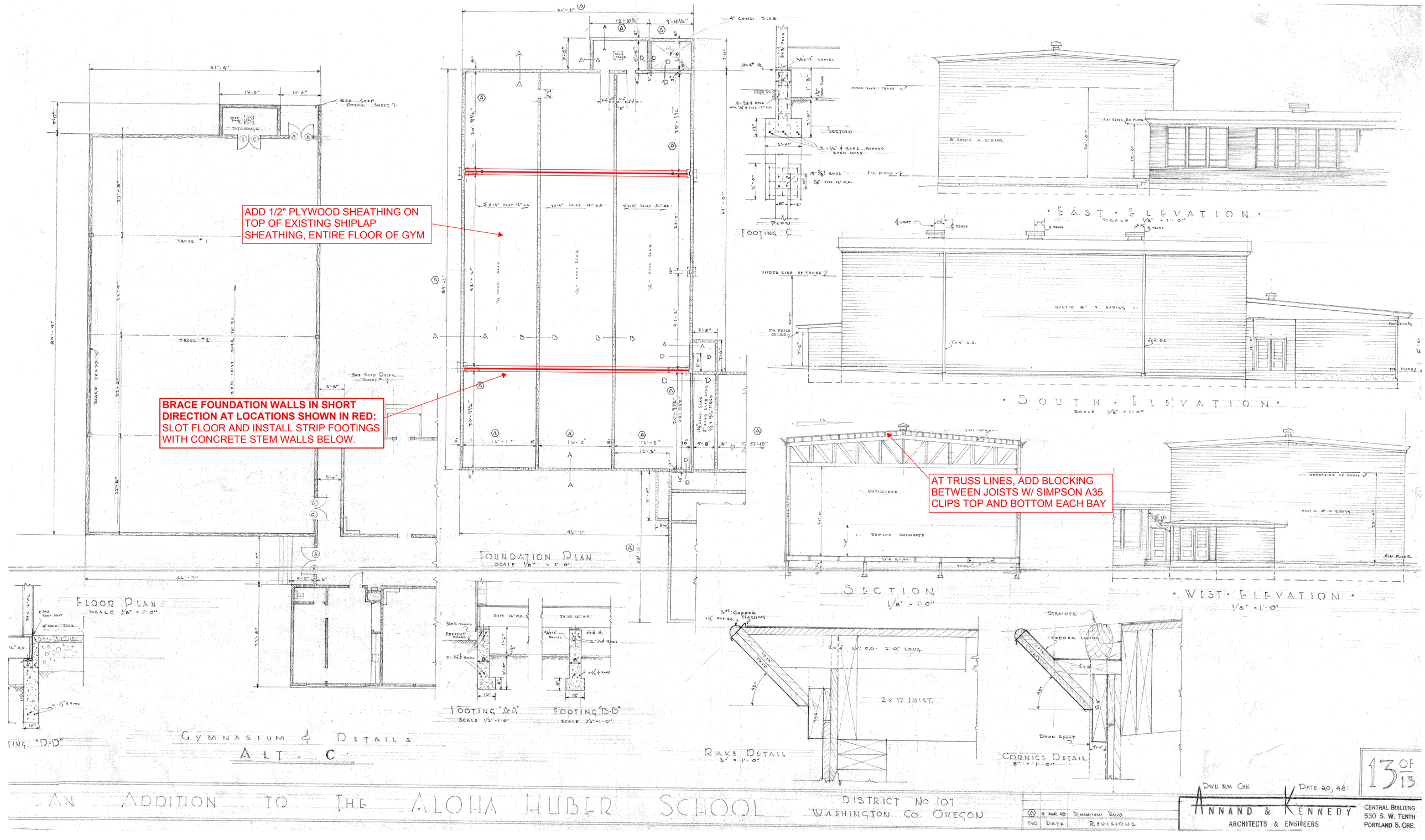
PROVIDE SHEAR WALLS AND FOOTINGS IN SHORT DIRECTION AT LOCATIONS SHOWN IN RED:
1. REMOVE EXISTING CLASSROOM DEMISING WALLS.
2. SLOT FLOOR AND INSTALL STRIP FOOTINGS BELOW.
3. BUILD NEW WOOD SHEAR WALLS WITH PLYWOOD SHEATHING. SLOT CEILING AS REQUIRED TO EXTEND NEW SHEAR WALLS ALL THE WAY UP TO ROOF SHEATHING.

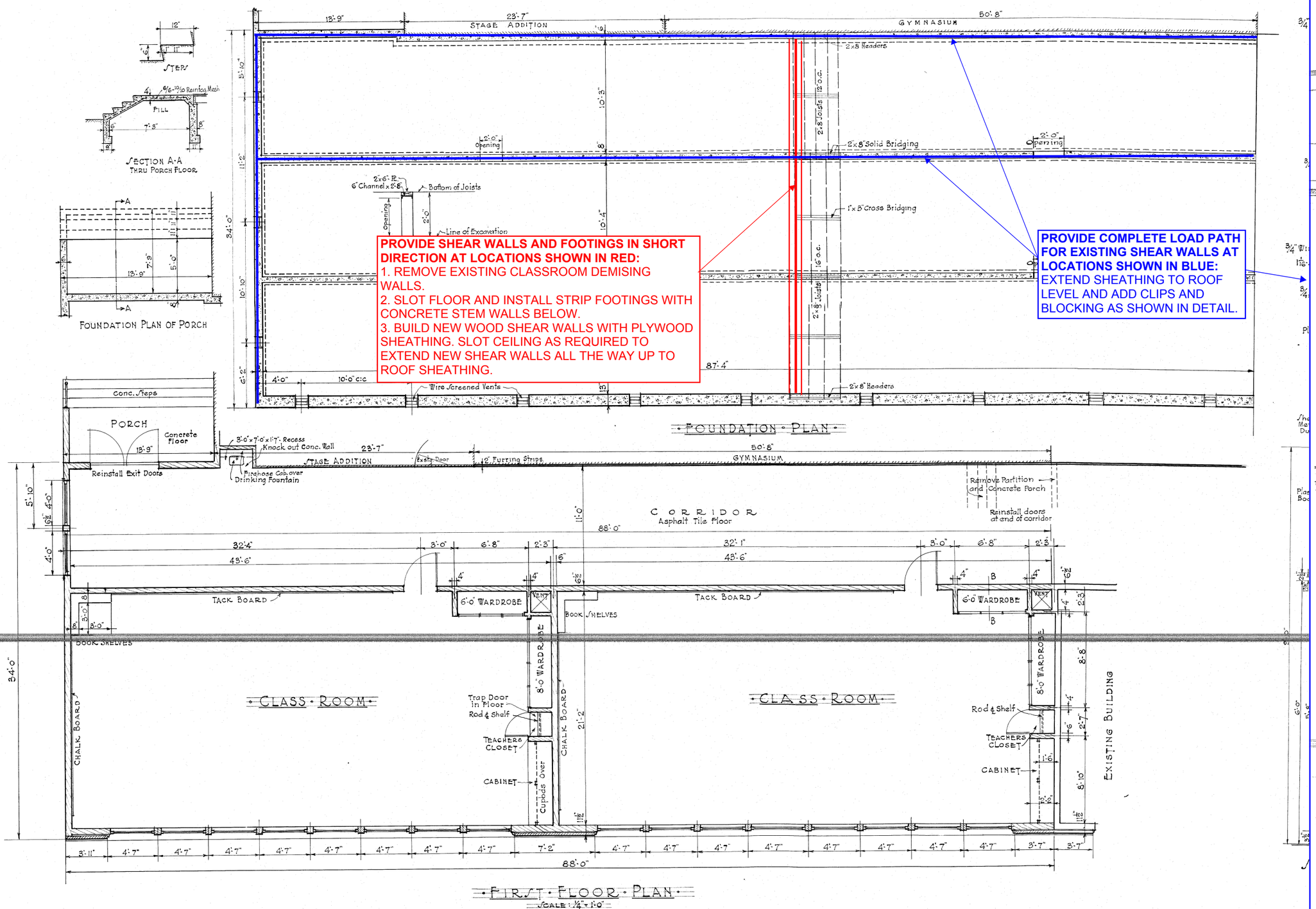
FINISH SCHEDULE

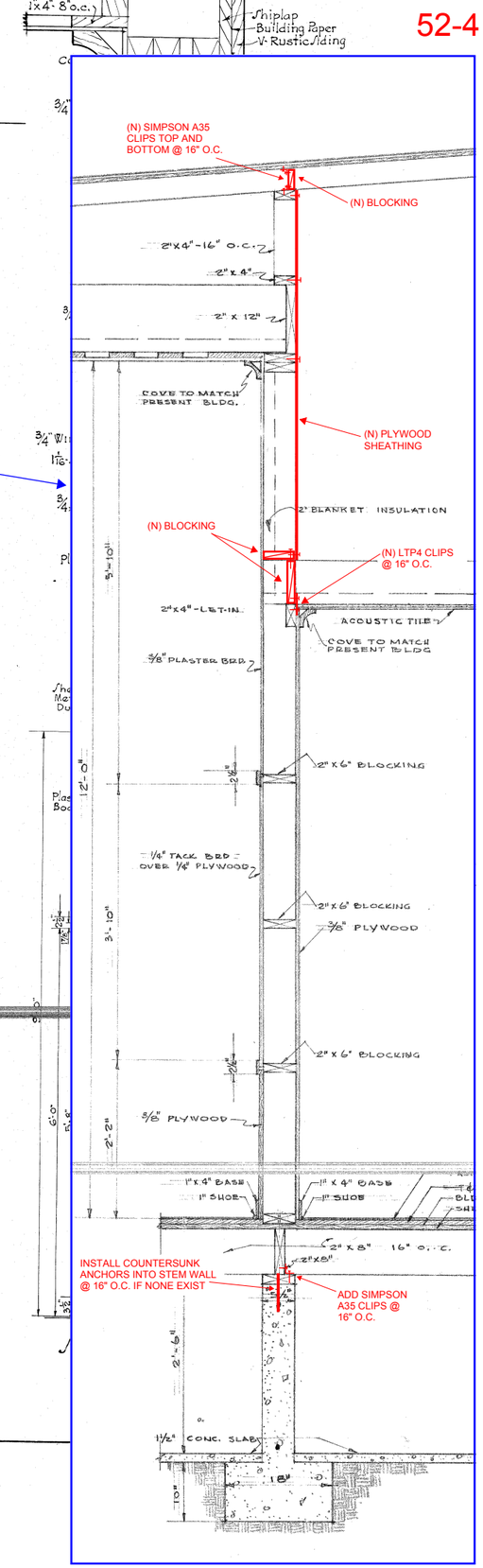
ROOM	FLOOR	BASE	WAINSCOT	TRIM	WALLS MATERIAL	WALLS FINISH	CEILING MATERIAL	CEILING FINISH	PAINTING WAINSCOT	PAINTING WALLS	PAINTING CEILING	PAINTING TRIM	REMARKS
ENTRY & CORRIDOR	ASPHALT TILE	4" WOOD BASE 1" SHOE	3/8" PLYWOOD	FIR	3/8" PLYWOOD	—	PLASTER BOARD	—	STAIN & VARNISH	PAINT	PAINT	STAIN & VARNISH	
CLASS ROOMS LIBRARY	"	"	"	"	PLASTER BOARD	—	"	—	"	"	"	"	
WORK RM & LAB OFF HEALTH ROOM & PROJECT RM	"	"	"	"	"	—	"	—	"	"	"	"	
PRINCIPAL & WAITING RM CLOAK ROOM	"	"	"	"	"	—	"	—	"	"	"	"	
JANITOR'S STORAGE & JANITOR'S RMS	CONC	4" CEMENT	—	"	"	—	"	—	—	"	"	"	
GIRLS TOILET	"	4" CEMENT	—	"	CEMENT PLASTER	STEEL TROWEL	KEENES CEMENT	WHITE SAND	—	ENAMEL	ENAMEL	ENAMEL	
BOYS TOILET	CONC & CERAMIC TILE	4" CEMENT	—	"	"	"	"	"	—	"	"	"	4'-0"x4'-0" - CERAMIC TILE PAD AT URINALS
TEACHERS TOILET HEALTH RM TOILET CLOAK RM. TOILETS	ASPHALT TILE	4" ASPHALT TILE	—	"	"	"	"	"	—	"	"	"	
CAFETERIA GYMNASIUM	MAPLE	4" BASE 1" SHOE	SHPLAP	"	UNFINISHED		UNFINISHED		PAINT	—	—	PAINT	WAINSCOT 7'-0" HIGH SHIPLAP
KITCHEN BOILER ROOM	CONC	—	—	"	UNFINISHED		MTL LATH & PLASTER	SAND	—	—	—	"	
L + S													

A	3'-0" x 7'-0"
B	3'-0" x 7'-0"
C	3'-0" x 7'-0"
D	2'-0" x 6'-0"
E	2'-6" x 7'-0"
G	2'-6" x 7'-0"
H	3'-0" x 7'-0"
I	3'-0" x 7'-0"
J	3'-0" x 7'-0"
K	2'-0" x 2'-0"
L	2'-0" x 2'-6"
M	3'-0" x 7'-0"
N	2'-0" x 5'-8"
P	2'-6" x 7'-0"
Q	2'-6" x 6'-8"


ELECTRICAL FIXTURES
SPARE CIRCUITS
CIRCUITS
SERVICE FROM PRESENT SCHL.
ELEC. PANEL
1-50 A. & 5-CIR. - 15A. MULTI-BKRS
SEMI-CLEAR
OBSCURE
SEMI-INDIRECT GLASS CLASS ROOMS
MARKED T
300 W. LAMPS MEDIUM BASE
4X16 OBSCURE
GLOBE OFFICE
MARKED O
SAME HANGER AS ABOVE 300 W. MED. LAMP.
14" FLAT BOWL CORRIDOR
MARKED P
2-100 W. OR 3-75 W. LAMPS
PORCELAIN
MARKED P
60 W. LAMP.
ANGLE DEFLECTOR PLATFORM
MARKED S
200 W. LAMPS
ENTRANCE
WATER PROOF
MARKED V
60 W. LAMP.
SCALE - 1½" = 1'-0"
DOOR SCHEDULE
NO. SIZE TYPE
1 3'-0" X 7'-0" X 1¾ 2 PANEL. TOP GLAZED 3 LTS.
HEATING PLAN
SCALE 1/16" = 1'-0"
LINE UP OPPOSITE CLEAR-STORY SASH AND NORTH WINDOWS
CLOAK RM.
CORRIDOR
PLATFORM
CLASS ROOM
CLASS ROOM
CLOAK RM.
OFFICE
BOOK CLOS.
RAMP DN.
PRESENT SCHOOL
ELEC. PANEL
14 FT. TACK-BOARD
21 FT. BLACK-BOARD + 5 FT. TACK-BOARD.
12" SHELF & COAT STRIP
PROVIDE COMPLETE LOAD PATH FOR EXISTING SHEAR WALLS AT LOCATIONS SHOWN IN BLUE:
EXTEND SHEATHING TO ROOF LEVEL AND ADD CLIPS AND BLOCKING AS SHOWN IN DETAIL.
PROVIDE SHEAR WALLS AND FOOTINGS IN SHORT DIRECTION AT LOCATIONS SHOWN IN RED:
1. REMOVE EXISTING CLASSROOM DEMISING WALLS.
2. SLOT FLOOR AND INSTALL STRIP FOOTINGS WITH CONCRETE STEM WALLS BELOW.
3. BUILD NEW WOOD SHEAR WALLS WITH PLYWOOD SHEATHING. SLOT CEILING AS REQUIRED TO EXTEND NEW SHEAR WALLS ALL THE WAY UP TO ROOF SHEATHING.
COMPOSITION ROOF
CEILING
13 X 44 D.S. GLASS
13 X 56 D.S. GLASS
PLATFORM
FLOOR
GRADE
PRESENT SCHOOL BSMT. FLOOR
NORTH ELEVATION
SCALE - ¼" = 1'-0"
(N) SIMPSON A35 CLIPS TOP AND BOTTOM @ 16" O.C.
(N) BLOCKING
2"x4"-16" O.C.
2" x 4"
2" x 12"
COVE TO MATCH PRESENT BLDG.
(N) PLYWOOD SHEATHING
2" BLANKET INSULATION
(N) BLOCKING
(N) LTP4 CLIPS @ 16" O.C.
2"x4"-LET-IN
ACOUSTIC TILE
COVE TO MATCH PRESENT BLDG
3/8" PLASTER BRD.
2" x 6" BLOCKING
1/4" TACK BRD - OVER 1/8" PLYWOOD
3/8" PLYWOOD
5/8" PLYWOOD
1" x 4" BASE
1" SHOE
2" x 8" 16" O.C.
INSTALL COUNTERSUNK ANCHORS INTO STEM WALL @ 16" O.C. IF NONE EXIST
ADD SIMPSON A35 CLIPS @ 16" O.C.
CONC. SLAB

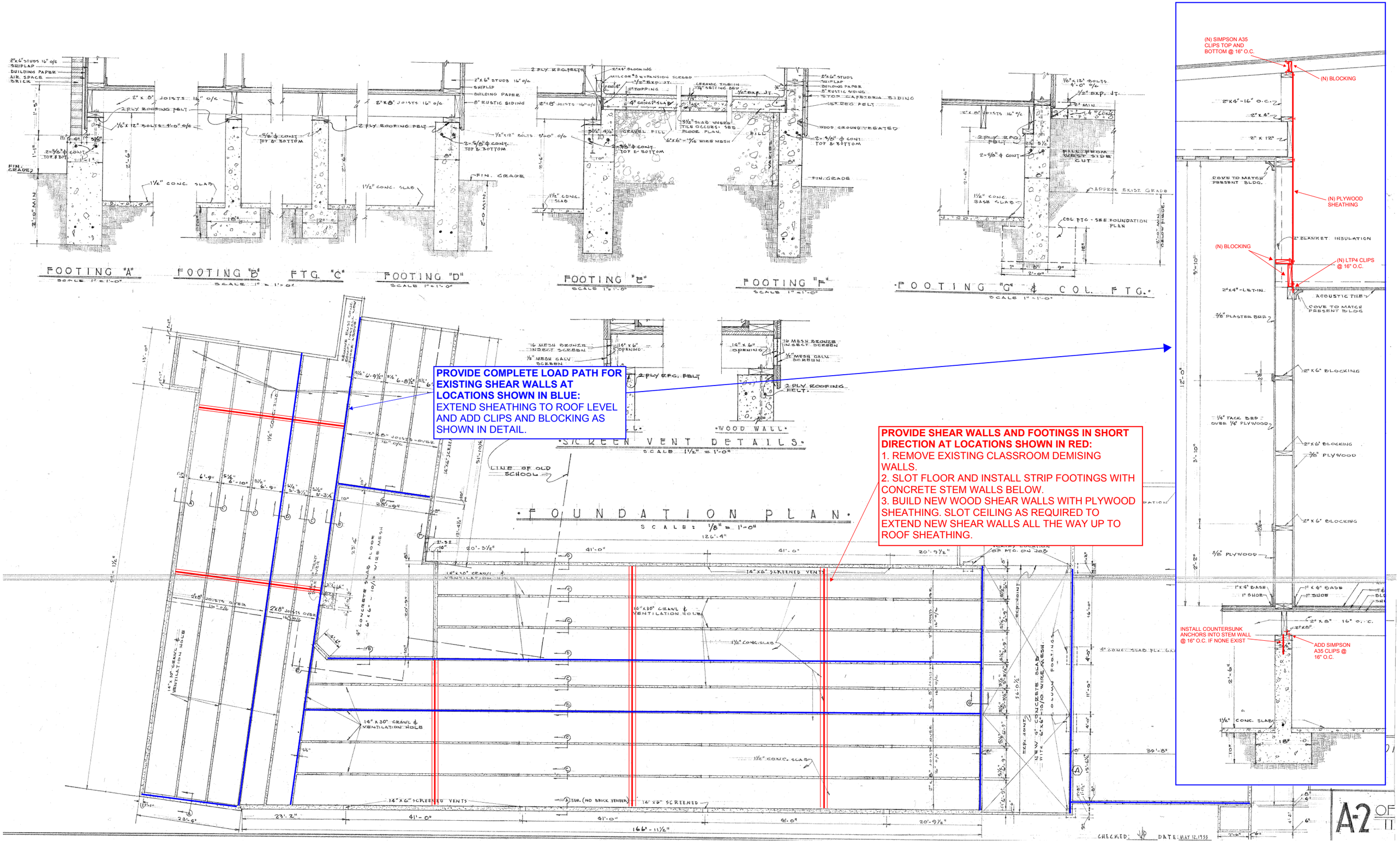

ADD 1/2" PLYWOOD SHEATHING ON TOP OF EXISTING SHIPLAP SHEATHING, ENTIRE FLOOR OF GYM
BRACE FOUNDATION WALLS IN SHORT DIRECTION AT LOCATIONS SHOWN IN RED: SLOT FLOOR AND INSTALL STRIP FOOTINGS WITH CONCRETE STEM WALLS BELOW.
AT TRUSS LINES, ADD BLOCKING BETWEEN JOISTS W/ SIMPSON A35 CLIPS TOP AND BOTTOM EACH BAY
FLOOR PLAN
SCALE 1/8" = 1'-0"
FOUNDATION PLAN
SCALE 1/8" = 1'-0"
FOOTING C
SECTION
FOOTING "A-A"
SCALE 1/2" = 1'-0"
FOOTING "D-D"
SCALE 1/2" = 1'-0"
EAST ELEVATION
SCALE 1/8" = 1'-0"
SOUTH ELEVATION
SCALE 1/8" = 1'-0"
SECTION
1/8" = 1'-0"
WEST ELEVATION
1/8" = 1'-0"
RAKE DETAIL
3" = 1'-0"
CORNICE DETAIL
3" = 1'-0"
GYMNASIUM & DETAILS
ALT. C
AN ADDITION TO THE ALOHA HUBER SCHOOL
DISTRICT NO 107
WASHINGTON CO. OREGON
ANNAND & KENNEDY
ARCHITECTS & ENGINEERS
CENTRAL BUILDING
530 S. W. TENTH
PORTLAND 5, ORE.
13 OF 13

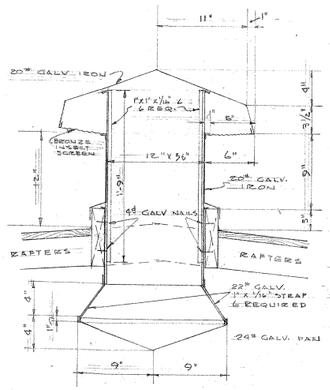




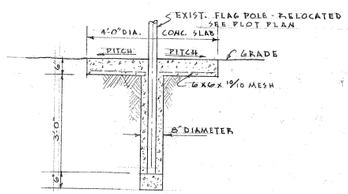
ADDITION TO THE ALOHA HUBER SCHOOL

DISTRICT No. 107
WASHINGTON CO. OREGON

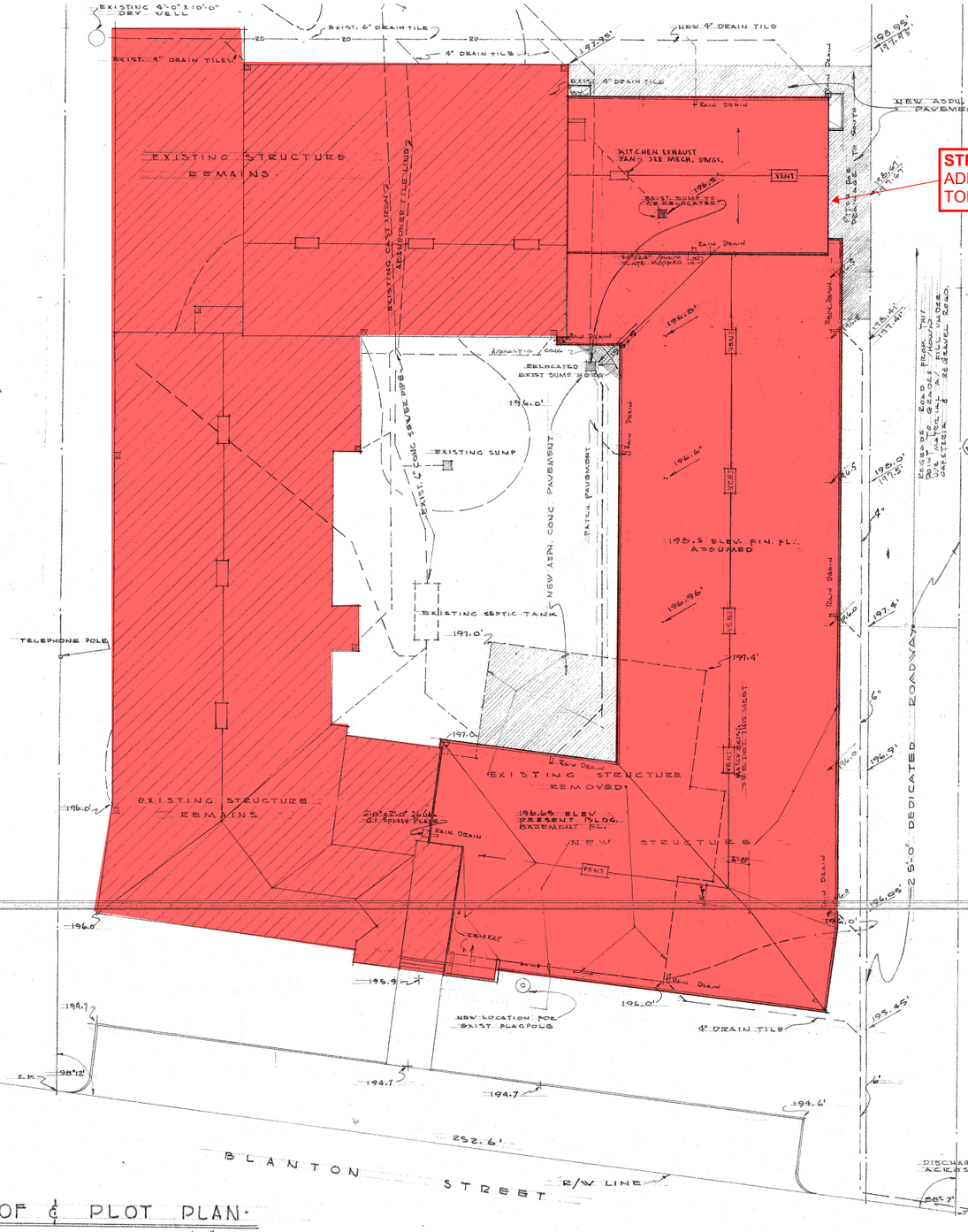

FOOTING "A"
FOOTING "B"
FTG. "C"
FOOTING "D"
FOOTING "E"
FOOTING "F"
FOOTING "G" & COL. FTG.
SCREEN VENT DETAILS
FOUNDATION PLAN
PROVIDE COMPLETE LOAD PATH FOR EXISTING SHEAR WALLS AT LOCATIONS SHOWN IN BLUE:
EXTEND SHEATHING TO ROOF LEVEL AND ADD CLIPS AND BLOCKING AS SHOWN IN DETAIL.
PROVIDE SHEAR WALLS AND FOOTINGS IN SHORT DIRECTION AT LOCATIONS SHOWN IN RED:
1. REMOVE EXISTING CLASSROOM DEMISING WALLS.
2. SLOT FLOOR AND INSTALL STRIP FOOTINGS WITH CONCRETE STEM WALLS BELOW.
3. BUILD NEW WOOD SHEAR WALLS WITH PLYWOOD SHEATHING. SLOT CEILING AS REQUIRED TO EXTEND NEW SHEAR WALLS ALL THE WAY UP TO ROOF SHEATHING.
(N) SIMPSON A35 CLIPS TOP AND BOTTOM @ 16" O.C.
(N) BLOCKING
(N) PLYWOOD SHEATHING
(N) BLOCKING
(N) LTP4 CLIPS @ 16" O.C.
INSTALL COUNTERSUNK ANCHORS INTO STEM WALL @ 16" O.C. IF NONE EXIST
ADD SIMPSON A35 CLIPS @ 16" O.C.
A-2



SECTION THRU ATTIC VENT
SCALE: 1½" = 1'-0"
(IDENTICAL TO EXISTING VENTS.)

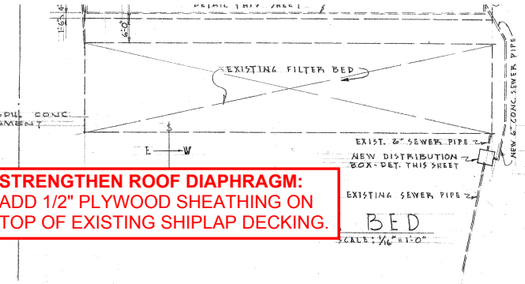


FLAGPOLE BASE DETAIL
SCALE: ½" = 1'-0"



ROOF & PLOT PLAN
SCALE: 1/16" = 1'-0"

LOT 274 - JOHNSON ESTATE ADDITION TO BEAVERTON - REEDVILLE ACREAGE.



BED
SCALE: 1/16" = 1'-0"

STRENGTHEN ROOF DIAPHRAGM:
ADD 1/2" PLYWOOD SHEATHING ON TOP OF EXISTING SHIPLAP DECKING.

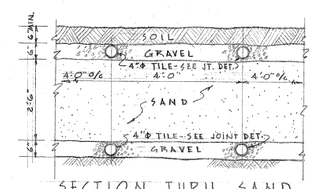
A-3	FLOOR PLAN
A-4	ELEVATIONS
A-5	TYPICAL SECTIONS
A-6	TYP. CLASSROOM ELEVATIONS
A-7	KITCHEN DETAILS & CAFETERIA SECTIONS
A-8	ELECTRICAL PLAN
A-9	ELECTRICAL RISER DIAGRAM
A-10	HEATING PLAN
A-11	PLUMBING PLAN

FINISH SCHEDULE

ROOM	FLOOR	BASE	TRIM	WALLS MATERIAL	WALLS FINISH	CEILING MATERIAL	CEILING FINISH	WAINSCOT MATERIAL	WAINSCOT FINISH	PAINTING WALLS	PAINTING WAINS.	PAINTING CEIL.	PAINTING TRIM	REMARKS
CORRIDOR	ASPHALT TILE	4" WOOD 1" SHOE	FIR	3/8 PLYWOOD		ACOUSTIC TILE		3/8 PLYWOOD						
CLASSROOMS				PLASTER BOARD						O.C.L.	STAIN & VARNISH	NONE	STAIN & VARNISH	CLOSET SAME AS ROOM
LIBRARY														
WORK RM. & LIBE OFF.														
PRINCIPAL & WAITING RM.														
HEALTH RM. & TOILET														CLOSET SAME AS ROOM (A)
(A) STORAGE & JANITOR'S RM.	CONC.	4" CEMENT		KEENES CEM.	STEEL TROWEL			NONE	NONE	ENAMEL	NONE		ENAMEL	
GIRL'S TOILET						KEENES CEM.	TROWEL					ENAMEL		METAL TOILET PARTITIONS SEE SPECIFICATIONS
BOY'S TOILET	CONC. & CERAMIC TILE													4'-0" x 4'-0" - CERAMIC TILE PAD AT URINALS
TEACHER'S TOILET	ASPHALT TILE	4" RUBBER												
CAFETERIA		4" WOOD 1" SHOE		NONE	NONE	NONE	NONE	3/8" PLYWOOD		STAIN & VARNISH	STAIN & VARNISH	NONE	STAIN & VARNISH	WALLS - PLYWOOD 8' HIGH KITCHEN END - FULL HEIGHT
KITCHEN		4" RUBBER		KEENES CEM.	STEEL TROWEL	KEENES CEM.	TROWEL	NONE	NONE	ENAMEL	NONE	ENAMEL	ENAMEL	SEE "A-7" FOR DETAILS (A)

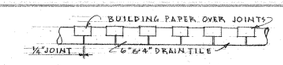
DOOR SCHEDULE

DOOR	SIZE	MATERIAL	REMARKS
(A)	3'-0" x 7'-0" x 1¾"	FIR	SEE ELEVATIONS
(B)	3'-0" x 7'-0" x 1¾"	"	FLUSH DOOR WITH 2'-0 x 2'-8" GLAZED PANEL
(C)	3'-0" x 7'-0" x 1¾"	"	FLUSH PANEL
(D)	2'-0" x 6'-0" x 1⅜"	"	FLUSH PANEL
(E)	2'-6" x 7'-0" x 1⅜"	"	FLUSH PANEL
(F)	2 - 8" x 5'-0" x 1⅜"	"	FLUSH PANEL - DOUBLE ACTING
(G)	2'-0" x 2'-6 x 1⅜"	"	SLAB DOOR TO ATTIC

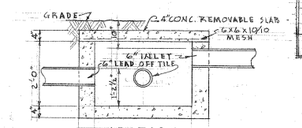


SECTION THRU SAND FILTER BED
SCALE: ½" = 1'-0"

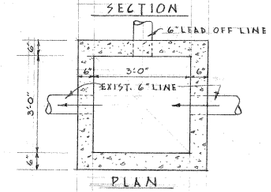
LEGEND



JOINT DETAIL
SCALE: ½" = 1'-0"



SECTION



PLAN

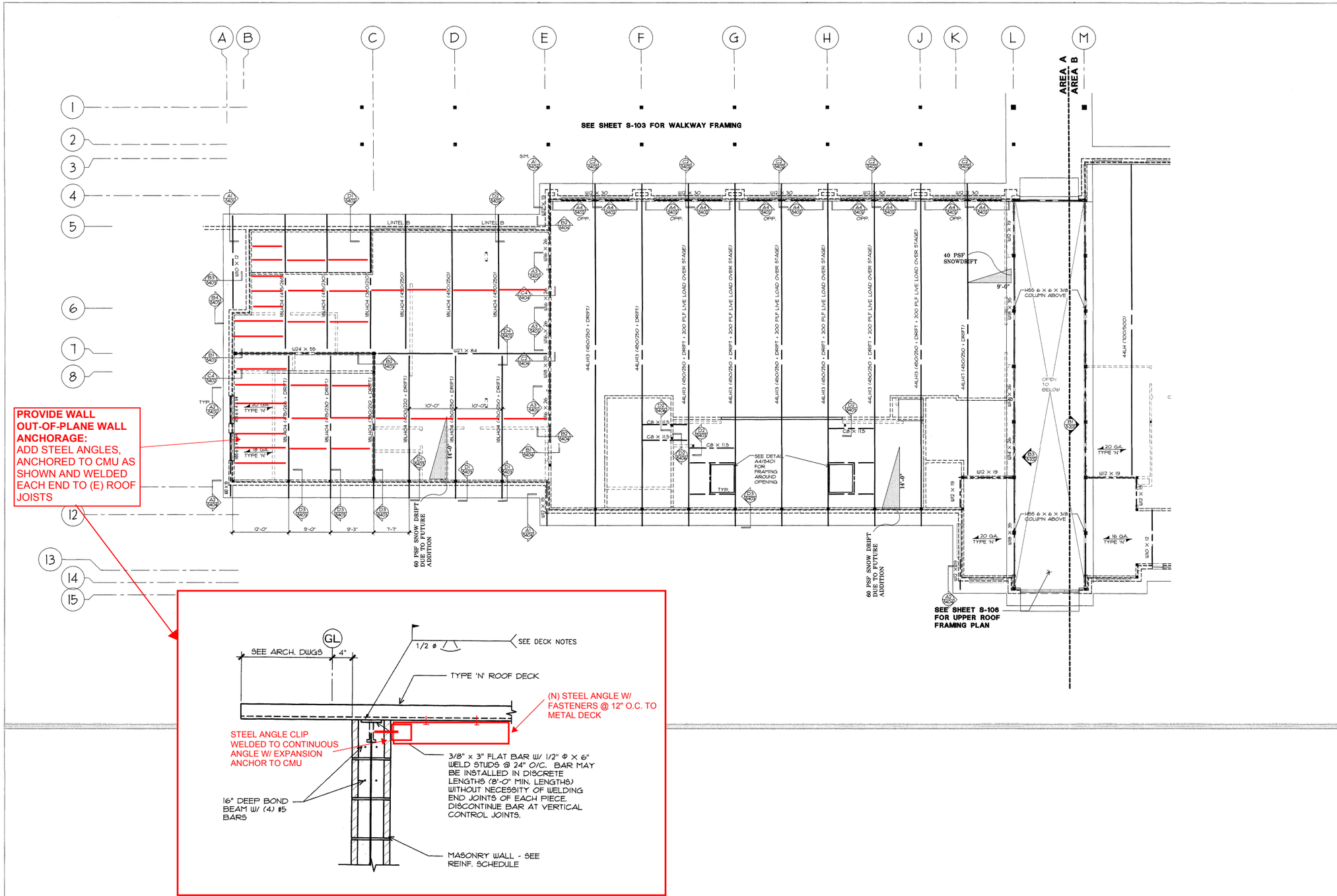
DISTRIBUTION BOX DET.
SCALE: ½" = 1'-0"

CHECKED

DATE: MAY 12, 1955

PLOT & ROOF PLAN

A-1



TYPICAL ROOF DECK - TYPE 'N'

ROOF DECK SHALL BE "VERCO" TYPE 'N' GALVANIZED STEEL DECK. LAY DECK IN THREE SPAN CONTINUOUS PATTERN MINIMUM. FASTEN TO EACH SUPPORT WITH FOUR 1/2 INCH DIAMETER PUDDLE WELDS PER MANUFACTURERS RECOMMENDATIONS. WELD TO THOSE SUPPORTS, BLOCKING AND SHEAR COLLECTORS PARALLEL TO DECK SPAN WITH 1/2 INCH DIAMETER PUDDLE WELDS AT 24 INCH SPACING. BUTTON PUNCH SIDE LAP SEAMS AT 12 INCH SPACING.

SEE ARCHITECTURAL DRAWINGS FOR ACOUSTICAL DECK LOCATIONS.

A1 / S-105

ROOF FRAMING PLAN - AREA 'A'

1/8" = 1'-0"

N

F·F·A

FLETCHER FARR AYOTTE, P.C.
ARCHITECTURE PLANNING INTERIORS
708 S.W. THIRD AVENUE / SUITE 200
PORTLAND, OREGON 97204-2417 U.S.A.
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STRUCTURAL ENGINEERS
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Consulting Structural Engineers
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Fax: (503) 226-3130
Email: mail@jgpierson.com
Web: www.jgpierson.com

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER
18760PE
OREGON
January 3, 1995
TONYA K. HALOG
EXPIRES: 6-30-05

BEAVERTON PUBLIC SCHOOLS

ALOHA PARK MIDDLE SCHOOL CONVERSION CONSTRUCTION SET

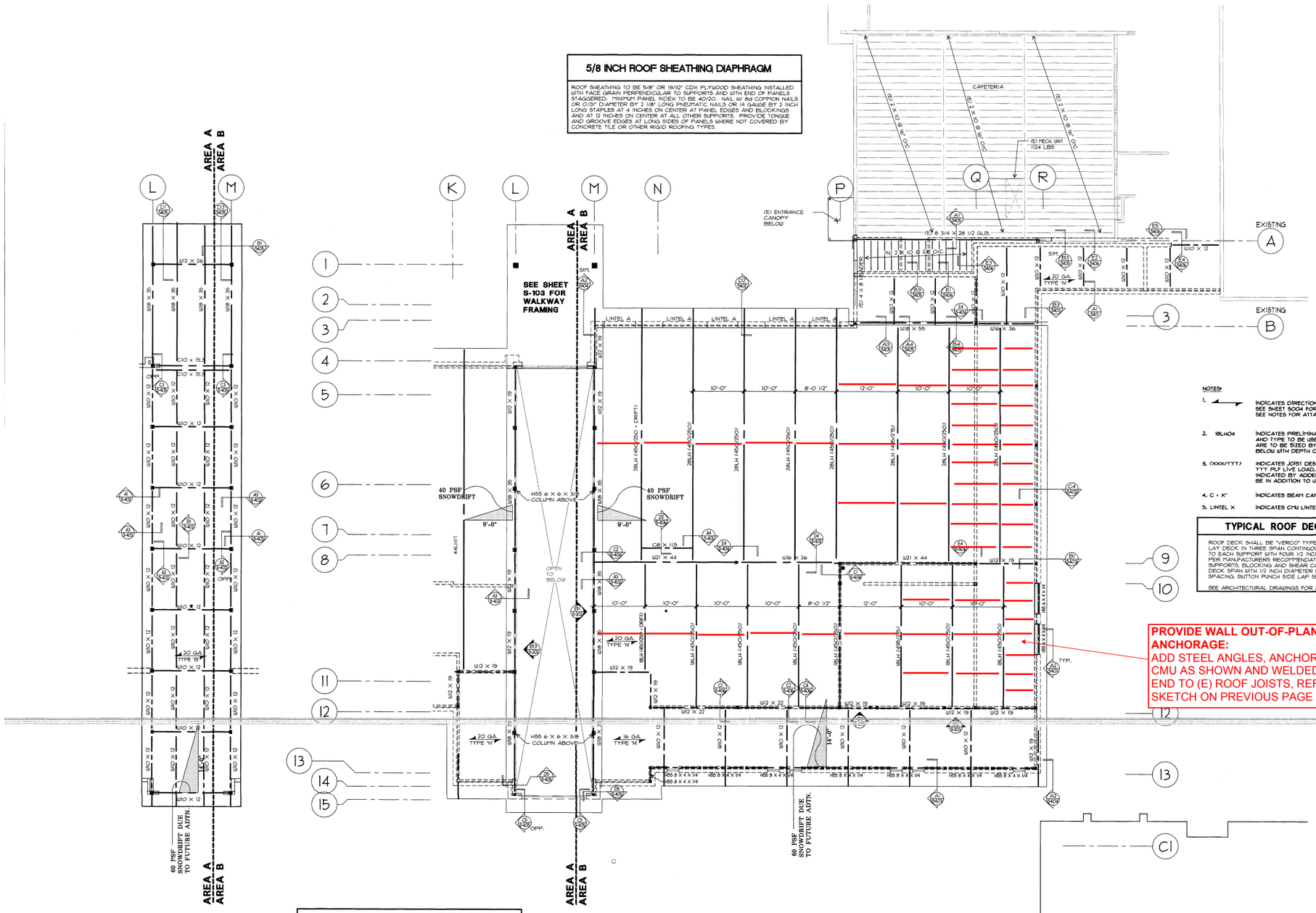
PROJECT NUMBER:	106603
DATE:	4/01/05
DRAWN:	KMW
APPROVED:	TKH
PLOT DATE:	
REVISIONS:	

ROOF FRAMING PLAN - AREA 'A'

S-105

5/8 INCH ROOF SHEATHING DIAPHRAGM

ROOF SHEATHING TO BE 5/8" OR 19/32" CDX PLYWOOD SHEATHING INSTALLED WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND WITH END OF PANELS STAGGERED. MINIMUM PANEL INDEX TO BE 40/20. NAIL W/ 8d COMMON NAILS OR 0.131" DIAMETER BY 2 1/8" LONG PNEUMATIC NAILS OR 14 GAUGE BY 2 INCH LONG STAPLES AT 4 INCHES ON CENTER AT PANEL EDGES AND BLOCKINGS AND AT 12 INCHES ON CENTER AT ALL OTHER SUPPORTS. PROVIDE TONGUE AND GROOVE EDGES AT LONG SIDES OF PANELS WHERE NOT COVERED BY CONCRETE TILE OR OTHER RIGID ROOFING TYPES.



TYPICAL ROOF DECK - TYPE 'N'

ROOF DECK SHALL BE "VERCO" TYPE 'N' GALVANIZED STEEL DECK. LAY DECK IN THREE SPAN CONTINUOUS PATTERN MINIMUM. FASTEN TO EACH SUPPORT WITH FOUR 1/2 INCH DIAMETER PUDDLE WELDS PER MANUFACTURERS RECOMMENDATIONS. WELD TO THOSE SUPPORTS, BLOCKING AND SHEAR COLLECTORS PARALLEL TO DECK SPAN WITH 1/2 INCH DIAMETER PUDDLE WELDS AT 24 INCH SPACING. BUTTON PUNCH SIDE LAP SEAMS AT 12 INCH SPACING.

SEE ARCHITECTURAL DRAWINGS FOR ACOUSTICAL DECK LOCATIONS.

NOTES:

1. ⟋ INDICATES DIRECTION OF STEEL ROOF DECK SPAN. SEE SHEET S004 FOR DECK GAUGES AT MAIN ROOF LEVEL. SEE NOTES FOR ATTACHMENT REQUIREMENTS AND OTHER INFORMATION
2. 18LH04 INDICATES PRELIMINARY OPEN WEB STEEL JOISTS DEPTH AND TYPE TO BE USED FOR ESTIMATING PURPOSES. JOISTS ARE TO BE SIZED BY MANUFACTURER FOR LOADS AS NOTED BELOW WITH DEPTH CORRESPONDING TO SIZES SHOWN.
3. (XXX/YYY) INDICATES JOIST DESIGN LOAD OF XXX PLF TOTAL LOAD AND YYY PLF LIVE LOAD. IN CERTAIN INSTANCES, AND WHERE INDICATED BY ADDED NOTE "DRIFT", DRIFTED SNOW LOADS WILL BE IN ADDITION TO UNIFORM LOADING NOTED.
4. C = X" INDICATES BEAM CAMBER
5. LINTEL X INDICATES CMU LINTEL - SEE SHEET S004

PROVIDE WALL OUT-OF-PLANE WALL ANCHORAGE:
ADD STEEL ANGLES, ANCHORED TO CMU AS SHOWN AND WELDED EACH END TO (E) ROOF JOISTS, REFERENCE SKETCH ON PREVIOUS PAGE

UPPER ROOF DECK - TYPE 'HSB'

ROOF DECK SHALL BE 1 1/2 INCH "VERCO" TYPE 'HSB-36' OR "BHP STEEL" TYPE 'B-36' 20 GAUGE GALVANIZED STEEL DECK. LAY DECK IN MINIMUM THREE-SPAN PATTERN. FASTEN TO EACH SUPPORT WITH SEVEN 1/2 INCH DIAMETER PUDDLE WELDS PER MANUFACTURER'S RECOMMENDATIONS. WELD TO THOSE SUPPORTS, BLOCKING AND SHEAR COLLECTORS PARALLEL TO DECK SPAN WITH 1/2 INCH DIAMETER PUDDLE WELDS AT 24 INCH SPACING. BUTTON PUNCH SIDE LAP SEAMS AT 12 INCH SPACING.

SEE ARCHITECTURAL DRAWING FOR ACOUSTICAL DECK LOCATIONS.

A1 / S-106 UPPER ROOF FRAMING PLAN - AREA 'B'
1/8" = 1'-0"

A2 / S-106 ROOF FRAMING PLAN - AREA 'B'
1/8" = 1'-0"

N

F·F·A

FLETCHER FARR AYOTTE, P.C.
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Web: www.jgpierson.com

STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 18760PE OREGON January 7, 2005 TONYA K. HALSE
EXPIRES: 6-30-05

BEAVERTON PUBLIC SCHOOLS

ALOHA PARK MIDDLE SCHOOL CONVERSION CONSTRUCTION SET

PROJECT NUMBER:	106603
DATE:	4/01/05
DRAWN:	KMW
APPROVED:	TKH
PLOT DATE:	
REVISIONS:	

ROOF FRAMING PLAN - AREA 'B'

S-106

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Facility Cost Estimates

SUMMARY

Customer: KPFF
Project: Project #7 Chehalem School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ -
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ -
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ 18,000
09	Finishes		$ -
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 18,000**
12.00%	Escalation - Q3, 2021		$ 2,160
	Construction COW including Escalation: sub-total		**$ 20,160**
5.00%	GC Mobilization		$ 1,008
7.00%	General Conditions		$ 1,482
5.00%	GC Overhead		$ 1,058
1.00%	GC Bonding		$ 212
0.44%	GC Insurance		$ 93
7.00%	GC Profit		$ 1,482
	Construction & General Conditions : sub-total		**$ 25,495**
15.00%	Project Contingency		$ 3,024
10.00%	Construction Contingency		$ 2,016
	Estimate including Contingencies : sub-total		**$ 30,535**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 30,535**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 30,535**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 15,267**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 30,535**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 45,802**

E-1

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #7 Chehalem School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: Install 3M safety film
03	The estimate is based on the work taking place in 2021. Escalation of 6% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #7 Chehalem School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ -**
02	02_00_00		No scope				$ -
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ -**
05	05_00_00		No scope				$ -
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ 18,000.00**
08	08_00_00		Apply 3M safety and security film to windows in entry	600	SF	$ 30.00	$ 18,000.00
			FINISHES				**$ -**
09	09_00_00		No scope				$ -
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 18,000**

SUMMARY

Customer: KPFF
Project: Project #9 Ellmonica School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ -
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ -
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ 21,000
09	Finishes		$ -
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 21,000**
12.00%	Escalation - Q3, 2021		$ 2,520
	Construction COW including Escalation: sub-total		**$ 23,520**
5.00%	GC Mobilization		$ 1,176
7.00%	General Conditions		$ 1,728.72
5.00%	GC Overhead		$ 1,234.80
1.00%	GC Bonding		$ 246.96
0.44%	GC Insurance		$ 108.66
7.00%	GC Profit		$ 1,728.72
	Construction & General Conditions : sub-total		**$ 29,744**
15.00%	Project Contingency		$ 3,528
10.00%	Construction Contingency		$ 2,352
	Estimate including Contingencies : sub-total		**$ 35,624**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 35,624**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 35,624**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 17,812**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 35,624**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 53,436**

E-4

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #9 Ellmonica School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1.Install 3M safety film
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #9 Ellmonica School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ -**
02	02_00_00		No scope				$ -
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ -**
05	05_00_00		No scope				$ -
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ 21,000.00**
08	08_00_00		Apply 3M safety and security film to windows in entry	700	SF	$ 30.00	$ 21,000.00
			FINISHES				**$ -**
09	09_00_00		No scope				$ -
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 21,000**

SUMMARY

Customer: KPFF
Project: Project #12 Fir Grove School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect:
CM/GC:

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 73,500
03	Concrete		$ -
04	Masonry		$ 9,000
05	Metals		$ 29,600
06	Wood, Plastics & Composites		$ 100,500
07	Thermal & Moisture Protection		$ 162,000
08	Openings		$ -
09	Finishes		$ 20,800
10	Specialties		$ -
11	Equipment & Storage		$ 20,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 20,000
23	Heating Ventilating & Air Conditioning:		$ 25,000
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 15,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 475,400**
12.00%	Escalation - Q3, 2021		$ 57,048
	Construction COW including Escalation: sub-total		**$ 532,448**
5.00%	GC Mobilization		$ 26,622
7.00%	General Conditions		$ 39,135
5.00%	GC Overhead		$ 27,954
1.00%	GC Bonding		$ 5,591
0.44%	GC Insurance		$ 2,460
7.00%	GC Profit		$ 39,135
	Construction & General Conditions : sub-total		**$ 673,344**
15.00%	Project Contingency		$ 79,867
10.00%	Construction Contingency		$ 53,245
	Estimate including Contingencies : sub-total		**$ 806,456**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 806,456**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 806,456**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 403,228**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 806,456**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 1,209,685**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #12 Fir Grove School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
CM/GC:	**TBD**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as moderate per KPFF correspondence. Major work taking place consist of the following: 1. Demo and reinstall of roof and associated equipment
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #12 Fir Grove School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 73,500.00**
02	02_00_00		Demo sheetrock for install of blocking and clips; sheet 12-1	1,600	SF	$ 3.00	$ 4,800.00
02	02_00_00		Demo ceiling tile for install of tension ties; sheet 12-2	1,400	SF	$ 2.50	$ 3,500.00
02	02_00_00		Demo existing roofing; sheet 12-1	13,500	SF	$ 4.00	$ 54,000.00
02	02_00_00		Demo cap and curb; sheet 12-1	700	LF	$ 16.00	$ 11,200.00
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ 9,000.00**
04	04_00_00		Install tension ties and anchor to CMU @ 48" on center; sheet12-3	90	EA	$ 100.00	$ 9,000.00
			METALS				**$ 29,600.00**
05	05_00_00		Install simpson clips at top and bottom of joist where blocking is added; sheet 12-1	120	EA	$ 60.00	$ 7,200.00
05	05_00_00		Install cap and curb; sheet 12-1	700	LF	$ 32.00	$ 22,400.00
			WOODS, PLASTICS AND COMPOSITES				**$ 100,500.00**
06	06_00_00		Install new plywood sheathing over existing T&G; sheet 12-1	13,500	SF	$ 7.00	$ 94,500.00
06	06_00_00		Install 2"x12" wood blocking between joists; sheet 12-1	400	LF	$ 15.00	$ 6,000.00
			THERMAL & MOISTURE PROTECTION				**$ 162,000.00**
07	07_00_00		install new TPO roofing; sheet 12-1	13,500	SF	$ 12.00	$ 162,000.00
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 20,800.00**
09	09_00_00		Install sheetrock, paint after install of blocking and clips; sheet 12-1	1,600	SF	$ 6.00	$ 9,600.00
09	09_00_00		Reinstall ceiling tiles after tension ties are installed; includes 50% breakage of tiles sheet 12-2; allowance	1,400	SF	$ 8.00	$ 11,200.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ 20,000.00**
11	11_00_00		Remove and reinstall cabinets and shelving for install of tension ties; Sheet 12-2; allowance	1	LS	$ 20,000.00	$ 20,000.00
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ 20,000.00**
22	22_00_00		Remove and reinstall roof drains and vents; allowance	1	LS	$ 20,000.00	$ 20,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ 25,000.00**
23	23_00_00		Remove and reinstall roof top units; allowance	1	LS	$ 25,000.00	$ 25,000.00
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 15,000.00**
26	26_00_00		Remove and reinstall raceways on area where roofing will be replaced; allowance	1	LS	$ 15,000.00	$ 15,000.00
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 475,400**

SUMMARY

Customer: KPFF
Project: Project #13 Greenway School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ -
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ -
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ 9,000
09	Finishes		$ -
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 9,000**
12.00%	Escalation - Q3, 2021		$ 1,080
	Construction COW including Escalation: sub-total		**$ 10,080**
5.00%	GC Mobilization		$ 504
7.00%	General Conditions		$ 740.88
5.00%	GC Overhead		$ 529.20
1.00%	GC Bonding		$ 105.84
0.44%	GC Insurance		$ 46.57
7.00%	GC Profit		$ 740.88
	Construction & General Conditions : sub-total		**$ 12,747**
15.00%	Project Contingency		$ 1,512
10.00%	Construction Contingency		$ 1,008
	Estimate including Contingencies : sub-total		**$ 15,267**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 15,267**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 15,267**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 7,634**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 15,267**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 22,901**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #13 Greenway School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1.Install 3M safety film
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #13 Greenway School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ -**
02	02_00_00		No scope				$ -
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ -**
05	05_00_00		No scope				$ -
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ 9,000.00**
08	08_00_00		Apply 3M safety and security film to windows in entry	300	SF	$ 30.00	$ 9,000.00
			FINISHES				**$ -**
09	09_00_00		No scope				$ -
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 9,000**

SUMMARY

Customer: KPFF
Project: Project #18 McKay Elementary
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 65,000
03	Concrete		$ 10,000
04	Masonry		$ -
05	Metals		$ 176,000
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ 80,000
09	Finishes		$ 203,000
10	Specialties		$ -
11	Equipment & Storage		$ 40,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ 40,000
22	Plumbing		$ 10,000
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 20,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 644,000**
12.00%	Escalation - Q3, 2021		$ 77,280
	Construction COW including Escalation: sub-total		**$ 721,280**
5.00%	GC Mobilization		$ 36,064
7.00%	General Conditions		$ 53,014
5.00%	GC Overhead		$ 37,867
1.00%	GC Bonding		$ 7,573
0.44%	GC Insurance		$ 3,332
7.00%	GC Profit		$ 53,014
	Construction & General Conditions : sub-total		**$ 912,145**
15.00%	Project Contingency		$ 108,192
10.00%	Construction Contingency		$ 72,128
	Estimate including Contingencies : sub-total		**$ 1,092,465**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 1,092,465**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 1,092,465**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 546,233**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 1,092,465**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 1,638,698**

E-13

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #18 McKay Elementary**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1. New metal Covered Play Area 2. Structural steel 3.Interior shear walls
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #18 McKay Elementary							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 65,000.00**
02	02_00_00		Demo interior classroom walls sheetrock; Sheet 18-1	5,800	SF	$ 5.00	$ 29,000.00
02	02_00_00		Demo existing covered play area; sheet 18-2;allowance	1	LS	$ 20,000.00	$ 20,000.00
02	02_00_00		Demo existing glass block windows; sheet 18-3; allowance	1	LS	$ 6,000.00	$ 6,000.00
02	02_00_00		Plywood weather protection during window demo and install; sheet 18-3; allowance	1	LS	$ 10,000.00	$ 10,000.00
			CONCRETE				**$ 10,000.00**
03	03_00_00		Footings for new covered play area; sheet 18-2; allowance	1	LS	$ 10,000.00	$ 10,000.00
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 176,000.00**
05	05_00_00		Install steel angle for shear transfer; sheet 18-1	560	LF	$ 100.00	$ 56,000.00
05	05_00_00		New metal covered play area; sheet 18-2; allowance	1	LS	$ 120,000.00	$ 120,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00						$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ 80,000.00**
08	08_00_00		Install new window system; sheet 18-3; allowance	1	LS	$ 80,000.00	$ 80,000.00
			FINISHES				**$ 203,000.00**
09	09_00_00		Install interior walls; new Shure-board, plasterboard, painting; sheet 18-1	5,800	SF	$ 35.00	$ 203,000.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ 40,000.00**
11	11_00_00		Remove and reinstall cabinets and shelving for install steel angle and new shear wall; Sheets 18-1 and 18-2; allowance	1	LS	$ 40,000.00	$ 40,000.00
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ 40,000.00**
21	21_00_00		Fire protection system for covered play structure (if required); allowance	1	LS	$ 40,000.00	$ 40,000.00
			PLUMBING				**$ 10,000.00**
22	22_00_00		Covered play area; sheet 18-2; allowance	1	LS	$ 10,000.00	$ 10,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 20,000.00**
26	26_00_00		Covered play area; sheet 18-2; allowance	1	LS	$ 20,000.00	$ 20,000.00
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 644,000**

SUMMARY

Customer: KPFF
Project: Project #20 Montclair School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ -
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ -
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ 22,500
09	Finishes		$ -
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 22,500**
12.00%	Escalation - Q3, 2021		$ 2,700
	Construction COW including Escalation: sub-total		**$ 25,200**
5.00%	GC Mobilization		$ 1,260
7.00%	General Conditions		$ 1,852.20
5.00%	GC Overhead		$ 1,323.00
1.00%	GC Bonding		$ 264.60
0.44%	GC Insurance		$ 116.42
7.00%	GC Profit		$ 1,852.20
	Construction & General Conditions : sub-total		**$ 31,868**
15.00%	Project Contingency		$ 3,780
10.00%	Construction Contingency		$ 2,520
	Estimate including Contingencies : sub-total		**$ 38,168**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 38,168**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 38,168**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 19,084**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 38,168**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 57,253**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #20 Montclair School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1.Install 3M safety film
03	The estimate is based on the work taking place in 2021. Escalation of 6% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #20 Montclair School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ -**
02	02_00_00		No scope				$ -
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ -**
05	05_00_00		No scope				$ -
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ 22,500.00**
08	08_00_00		Apply 3M safety and security film to windows in entry	750	SF	$ 30.00	$ 22,500.00
			FINISHES				**$ -**
09	09_00_00		No scope				$ -
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 22,500**

SUMMARY

Customer: KPFF
Project: Project #22 Oak Hills School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ -
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ -
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ 12,000
09	Finishes		$ -
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 12,000**
12.00%	Escalation - Q3, 2021		$ 1,440
	Construction COW including Escalation: sub-total		**$ 13,440**
5.00%	GC Mobilization		$ 672
7.00%	General Conditions		$ 987.84
5.00%	GC Overhead		$ 705.60
1.00%	GC Bonding		$ 141.12
0.44%	GC Insurance		$ 62.09
7.00%	GC Profit		$ 987.84
	Construction & General Conditions : sub-total		**$ 16,996**
15.00%	Project Contingency		$ 2,016
10.00%	Construction Contingency		$ 1,344
	Estimate including Contingencies : sub-total		**$ 20,356**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 20,356**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 20,356**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 10,178**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 20,356**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 30,535**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #22 Oak Hills School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1.Install 3M safety film
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #22 Oak Hills School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ -**
02	02_00_00		No scope				$ -
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ -**
05	05_00_00		No scope				$ -
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ 12,000.00**
08	08_00_00		Apply 3M safety and security film to windows in entry	400	SF	$ 30.00	$ 12,000.00
			FINISHES				**$ -**
09	09_00_00		No scope				$ -
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 12,000**

SUMMARY

Customer: KPFF
Project: Project #23 Raleigh Hills
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 80,000
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ 50,000
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ -
09	Finishes		$ 263,000
10	Specialties		$ -
11	Equipment & Storage		$ 20,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 413,000**
12.00%	Escalation - Q3, 2021		$ 49,560
	Construction COW including Escalation: sub-total		**$ 462,560**
5.00%	GC Mobilization		$ 23,128
7.00%	General Conditions		$ 33,998.16
5.00%	GC Overhead		$ 24,284.40
1.00%	GC Bonding		$ 4,856.88
0.44%	GC Insurance		$ 2,137.03
7.00%	GC Profit		$ 33,998.16
	Construction & General Conditions : sub-total		**$ 584,963**
15.00%	Project Contingency		$ 69,384
10.00%	Construction Contingency		$ 46,256
	Estimate including Contingencies : sub-total		**$ 700,603**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 700,603**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 700,603**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 350,301**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 700,603**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 1,050,904**

E-22

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #23 Raleigh Hills**
Date:	**03/10/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
CM/GC:	**TBD**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1.Install of new shear walls 2. Structural Steel
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #23 Raleigh Hills							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 80,000.00**
02	02_00_00		Demo interior classroom walls sheetrock; Sheet 23-1	4,500	SF	$ 5.00	$ 22,500.00
02	02_00_00		Demo interior gym wall sheetrock; Sheet 23-2	11,500	SF	$ 5.00	$ 57,500.00
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 50,000.00**
05	05_00_00		Install steel angle for shear transfer; sheet 23-2	500	LF	$ 100.00	$ 50,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 263,000.00**
09	09_00_00		Install Interior walls, new plywood sheathing finished; sheet 23-1	4,500	SF	$ 15.00	$ 67,500.00
09	09_00_00		Install interior walls, new plywood, plasterboard, painting; sheet 23-2	11,500	SF	$ 17.00	$ 195,500.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ 20,000.00**
11	11_00_00		Remove and reinstall cabinets and shelving for install steel angle; Sheet 23-2; allowance	1	LS	$ 20,000.00	$ 20,000.00
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 413,000**

SUMMARY

Customer: KPFF
Project: Project #24 Raleigh Park School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 40,300
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ 121,800
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ 77,600
08	Openings		$ -
09	Finishes		$ 11,600
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 10,000
23	Heating Ventilating & Air Conditioning:		$ 20,000
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 25,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 306,300**
12.00%	Escalation - Q3, 2021		$ 36,756
	Construction COW including Escalation: sub-total		**$ 343,056**
5.00%	GC Mobilization		$ 17,153
7.00%	General Conditions		$ 25,215
5.00%	GC Overhead		$ 18,010
1.00%	GC Bonding		$ 3,602
0.44%	GC Insurance		$ 1,585
7.00%	GC Profit		$ 25,215
	Construction & General Conditions : sub-total		**$ 433,835**
15.00%	Project Contingency		$ 51,458
10.00%	Construction Contingency		$ 34,306
	Estimate including Contingencies : sub-total		**$ 519,599**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 519,599**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 519,599**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 259,800**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 519,599**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 779,399**

E-25

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #24 Raleigh Park School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1.Structural steel 2. Roofing 3. Demilition
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #24 Raleigh Park School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 40,300.00**
02	02_00_00		Demo ceiling for install of tension ties; sheet 24-2; allowance	1	LS	$ 1,500.00	$ 1,500.00
02	02_00_00		Demo existing roofing; sheet 24-2; allowance	7,200	SF	$ 4.00	$ 28,800.00
02	02_00_00		Demo existing roofing; sheet 24-5; allowance	2,500	SF	$ 4.00	$ 10,000.00
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 121,800.00**
05	05_00_00		Install continuous steel angle for shear transfer; sheet 24-1	250	LF	$ 100.00	$ 25,000.00
05	05_00_00		Install tension tie with wall anchors to existing glu-lam at each end; sheet 24-2	30	EA	$ 60.00	$ 1,800.00
05	05_00_00		Install continuous coil strap on existing roof sheathing; sheet 24-2	1,000	LF	$ 20.00	$ 20,000.00
5.0	05_00_00		Install continuous steel angle for shear transfer; sheet 24-3	60	LF	$ 100.00	$ 6,000.00
05	05_00_00		Install continuous steel angle for shear transfer; sheet 24-4	360	LF	$ 100.00	$ 36,000.00
05	05_00_00		Install continuous coil strap on existing roof sheathing; sheet 24-5	550	LF	$ 60.00	$ 33,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ 77,600.00**
07	07_00_00		Install new roofing to match existing; sheet 24-2; allowance	7,200	SF	$ 8.00	$ 57,600.00
07	07_00_00		Install new roofing to match existing; sheet 24-5; allowance	2,500	SF	$ 8.00	$ 20,000.00
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 11,600.00**
09	09_00_00		Install ceiling after install of tension ties; sheet 24-2; allowance	1	LS	$ 2,000.00	$ 2,000.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ 10,000.00**
22	22_00_00		Remove and reinstall roof drains and vents; allowance	1	LS	$ 10,000.00	$ 10,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ 20,000.00**
23	23_00_00		Remove and reinstall roof top units; allowance	1	LS	$ 20,000.00	$ 20,000.00
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 25,000.00**
26	26_00_00		Remove and reinstall raceways on area where roofing will be replaced; allowance	1	LS	$ 25,000.00	$ 25,000.00
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 306,300**

SUMMARY

Customer: KPFF
Project: Project #25 Ridgewood School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 48,520
03	Concrete		$ 8,400
04	Masonry		$ -
05	Metals		$ 255,760
06	Wood, Plastics & Composites		$ 57,050
07	Thermal & Moisture Protection		$ 97,800
08	Openings		$ -
09	Finishes		$ 7,500
10	Specialties		$ -
11	Equipment & Storage		$ 15,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 10,000
23	Heating Ventilating & Air Conditioning:		$ 20,000
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 25,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 545,030**
12.00%	Escalation - Q3, 2021		$ 65,404
	Construction COW including Escalation: sub-total		**$ 610,434**
5.00%	GC Mobilization		$ 30,522
7.00%	General Conditions		$ 44,866.87
5.00%	GC Overhead		$ 32,047.76
1.00%	GC Bonding		$ 6,409.55
0.44%	GC Insurance		$ 2,820.20
7.00%	GC Profit		$ 44,866.87
	Construction & General Conditions : sub-total		**$ 771,967**
15.00%	Project Contingency		$ 91,565
10.00%	Construction Contingency		$ 61,043
	Estimate including Contingencies : sub-total		**$ 924,575**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 924,575**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 924,575**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 462,287**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 924,575**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 1,386,862**

E-28

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #25 Ridgewood School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as moderate per KPFF correspondence. Major work taking place consist of the following: 1. Structual steel 2. Roofing
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #25 Ridgewood School						
DIV	Ref	Description	Quantity	Unit	Unit Rate $	Total
		EXISTING CONDITIONS				**$ 48,520.00**
02		Saw cutting and excavation for footing and grade beams; Sheet 25-2; allowance	1	LS	$ 4,000.00	$ 4,000.00
02		Saw cutting and excavation for footing and grade beams; Sheet 25-3; allowance	1	LS	$ 2,000.00	$ 2,000.00
02		Demo existing chimney; sheet 25-2; allowance	1	LS	$ 6,000.00	$ 6,000.00
02		Demo existing roofing; sheet 25-2	5,600	SF	$ 4.00	$ 22,400.00
02		Demo existing roofing; sheet 25-3	2,550	SF	$ 4.00	$ 10,200.00
02		Demo cap and curb; sheet 25-2	160	LF	$ 16.00	$ 2,560.00
02		Demo cap and curb; sheet 25-3	85	LF	$ 16.00	$ 1,360.00
		CONCRETE				**$ 8,400.00**
03		Form, place and finish grade beams; sheet 25-2	8	CY	$ 450.00	$ 3,600.00
03		Form, place and finish grade beams; sheet 25-3	4	CY	$ 450.00	$ 1,800.00
03		Form, place and finish spread footings; sheet 25-2	4	CY	$ 500.00	$ 2,000.00
03		Form, place and finish spread footings; sheet 25-3	2	CY	$ 500.00	$ 1,000.00
		MASONRY				**$ -**
04		No scope				$ -
		METALS				**$ 255,760.00**
05		Install steel angle for shear transfer; sheet 25-1	1,500	LF	$ 100.00	$ 150,000.00
05		Install cap over existing chimney hole; sheet 25-2	120	EA	$ 60.00	$ 7,200.00
05		Install collector elements between new braced frames; sheet 25-2	100	LF	$ 225.00	$ 22,500.00
05		Install collector elements between new braced frames; sheet 25-3	60	LF	$ 225.00	$ 13,500.00
05		Install concentric braced frames; sheet 25-2	2	TON	$ 15,000.00	$ 30,000.00
05		Install concentric braced frames; sheet 25-3	1.5	TON	$ 15,000.00	$ 22,500.00
05		Install cap and curb; sheet 25-2	160	LF	$ 32.00	$ 5,120.00
05		Install cap and curb; sheet 25-3	85	LF	$ 32.00	$ 2,720.00
05		Install simpson strapping and wall anchors; sheet 25-2	20	EA	$ 60.00	$ 1,200.00
05		Install simpson strapping and wall anchors; sheet 25-3	17	EA	$ 60.00	$ 1,020.00
		WOODS, PLASTICS AND COMPOSITES				**$ 57,050.00**
06		Install new plywood sheathing over existing T&G; sheet 25-2	5,600	SF	$ 7.00	$ 39,200.00
06		Install new plywood sheathing over existing T&G; sheet 25-3	2,550	SF	$ 7.00	$ 17,850.00
		THERMAL & MOISTURE PROTECTION				**$ 97,800.00**
07		install new TPO roofing; sheet 25-2	5,600	SF	$ 12.00	$ 67,200.00
07		install new TPO roofing; sheet 25-3	2,550	SF	$ 12.00	$ 30,600.00
		OPENINGS				**$ -**
08		No scope				$ -
		FINISHES				**$ 7,500.00**
09		Install new flooring; sheet 25-2; allowance	1	LS	$ 5,000.00	$ 5,000.00
09		Install new flooring; sheet 25-3; allowance	1	LS	$ 2,500.00	$ 2,500.00
		SPECIALITIES				**$ -**
10		No scope				$ -
		EQUIPMENT & STORAGE				**$ 15,000.00**
11		Remove and reinstall cabinets and shelving for install steel angle; Sheet 25-1; allowance	1	LS	$ 15,000.00	$ 15,000.00
		PLUMBING				**$ 10,000.00**
22		Remove and reinstall roof drains and vents; allowance	1	LS	$ 10,000.00	$ 10,000.00
		HEATING, VENTILATION AND AIR CONDITIONING				**$ 20,000.00**
23		Remove and reinstall roof top units; allowance	1	LS	$ 20,000.00	$ 20,000.00
		INTEGRATED AUTOMATION				**$ -**
25		No scope				$ -
		ELECTRICAL				**$ 25,000.00**
26		Remove and reinstall raceways on area where roofing will be replaced; allowance	1	LS	$ 25,000.00	$ 25,000.00
		ESTIMATE TOTAL				**$ 545,030**

SUMMARY

Customer: KPFF
Project: Project #26 Rock Creek School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 15,000
03	Concrete		$ 7,600
04	Masonry		$ 3,000
05	Metals		$ 34,000
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ -
09	Finishes		$ -
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 59,600**
12.00%	Escalation - Q3, 2021		$ 7,152
	Construction COW including Escalation: sub-total		**$ 66,752**
5.00%	GC Mobilization		$ 3,338
7.00%	General Conditions		$ 4,906.27
5.00%	GC Overhead		$ 3,504.48
1.00%	GC Bonding		$ 700.90
0.44%	GC Insurance		$ 308.39
7.00%	GC Profit		$ 4,906.27
	Construction & General Conditions : sub-total		**$ 84,416**
15.00%	Project Contingency		$ 10,013
10.00%	Construction Contingency		$ 6,675
	Estimate including Contingencies : sub-total		**$ 101,104**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 101,104**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 101,104**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 50,552**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 101,104**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 151,656**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #26 Rock Creek School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
CM/GC:	**TBD**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as moderate per KPFF correspondence. Major work taking place consist of the following: 1. Structrual steel 2. Concrete 3. Existing conditions
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #26 Rock Creek School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 15,000.00**
02	02_00_00		Saw cutting and excavation for footing and grade beams; Sheet 26-1; allowance	1	LS	$ 4,000.00	$ 4,000.00
02	02_00_00		Demo existing structure for install of concentric braced frame; sheet 26-1; allowance	1	LS	$ 6,000.00	$ 6,000.00
02	02_00_00		Install shoreing to support roof for install of concentric braced frame; sheet 26-1; allowance	1	LS	$ 5,000.00	$ 5,000.00
			CONCRETE				**$ 7,600.00**
03	03_00_00		Form, place and finish grade beams; sheet 26-1	8	CY	$ 450.00	$ 3,600.00
03	03_00_00		Form, place and finish spread footings; sheet 26-1	4	CY	$ 500.00	$ 2,000.00
03	03_00_00		Concrete patch back after install of footings and grade beam; sheet 26-1; allowance	1	LS	$ 2,000.00	$ 2,000.00
			MASONRY				**$ 3,000.00**
04	04_00_00		Install tension ties to existing beams and attach to existing masonry; sheet 62-1	15	EA	$ 200.00	$ 3,000.00
			METALS				**$ 34,000.00**
05	05_00_00		Install concentric braced frames; sheet 26-1	2	TON	$ 15,000.00	$ 30,000.00
05	05_00_00		Install chord attachments between diaphragms; simpson hold down on each side of beam connected with steel rod through existing beam; sheet 26-1	8	EA	$ 500.00	$ 4,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ -**
09	09_00_00		No scope				$ -
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 59,600**

SUMMARY

Customer: KPFF
Project: Project #29 Sexton Mountain
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 12,500
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ 60,800
06	Wood, Plastics & Composites		$ 22,500
07	Thermal & Moisture Protection		$ -
08	Openings		$ -
09	Finishes		$ 92,500
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 188,300**
12.00%	Escalation - Q3, 2021		$ 22,596
	Construction COW including Escalation: sub-total		**$ 210,896**
5.00%	GC Mobilization		$ 10,545
7.00%	General Conditions		$ 15,500.86
5.00%	GC Overhead		$ 11,072.04
1.00%	GC Bonding		$ 2,214.41
0.44%	GC Insurance		$ 974.34
7.00%	GC Profit		$ 15,500.86
	Construction & General Conditions : sub-total		**$ 266,703**
15.00%	Project Contingency		$ 31,634
10.00%	Construction Contingency		$ 21,090
	Estimate including Contingencies : sub-total		**$ 319,427**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 319,427**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 319,427**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 159,714**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 319,427**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 479,141**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #29 Sexton Mountain**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLAN B CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1. Structural steel 2. Wood blocking 3. Shear walls
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #29 Sexton Mountain							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ -**
02	02_00_00		Demo gyp sheathing; sheet 29-1	2,500	SF	$ 5.00	$ 12,500.00
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 60,800.00**
05	05_00_00		Install continuous coil strapping; sheet 29-3	1,500	LF	$ 20.00	$ 30,000.00
05	05_00_00		Install 2"x12" light gauge blocking between joists; sheet 29-2	600	LF	$ 20.00	$ 12,000.00
05	05_00_00		Install 2"x12" light gauge blocking between joists; sheet 29-3	240	LF	$ 20.00	$ 4,800.00
05	05_00_00		Install 2"x12" light gauge blocking between joists for continuous strapping; sheet 29-3	400	LF	$ 20.00	$ 8,000.00
05	05_00_00		Install continuous tension ties at 48" on center; sheet 29-3	30	EA	$ 200.00	$ 6,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ 22,500.00**
06	06_00_00		Install wood blocking for full length of continuous strapping; sheet 29-3	1,500	LF	$ 15.00	$ 22,500.00
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 92,500.00**
09	09_00_00		Install 2' x 4' stud wall with plywood sheathing, sheetrock and paint, including hold down clips; sheet 29-1	2,500	SF	$ 37.00	$ 92,500.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 188,300**

SUMMARY

Customer: KPFF
Project: Project #31 Terra Linda School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ -
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ -
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ 16,500
09	Finishes		$ -
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 16,500**
12.00%	Escalation - Q3, 2021		$ 1,980
	Construction COW including Escalation: sub-total		**$ 18,480**
5.00%	GC Mobilization		$ 924
7.00%	General Conditions		$ 1,358
5.00%	GC Overhead		$ 970
1.00%	GC Bonding		$ 194
0.44%	GC Insurance		$ 85
7.00%	GC Profit		$ 1,358
	Construction & General Conditions : sub-total		**$ 23,370**
15.00%	Project Contingency		$ 2,772
10.00%	Construction Contingency		$ 1,848
	Estimate including Contingencies : sub-total		**$ 27,990**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 27,990**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 27,990**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 13,995**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 27,990**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 41,985**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #31 Terra Linda School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1.Install 3M safety film
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #31 Terra Linda School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ -**
02	02_00_00		No scope				$ -
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ -**
05	05_00_00		No scope				$ -
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ 16,500.00**
08	08_00_00		Apply 3M safety and security film to windows in entry	550	SF	$ 30.00	$ 16,500.00
			FINISHES				**$ -**
09	09_00_00		No scope				$ -
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 16,500**

SUMMARY

Customer: KPFF
Project: Project #35 Cedar park
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 224,525
03	Concrete		$ 9,000
04	Masonry		$ -
05	Metals		$ 637,125
06	Wood, Plastics & Composites		$ 280,946
07	Thermal & Moisture Protection		$ 455,000
08	Openings		$ 15,000
09	Finishes		$ 148,300
10	Specialties		$ 3,000
11	Equipment & Storage		$ 9,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 48,000
23	Heating Ventilating & Air Conditioning:		$ 100,000
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 30,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 1,959,896**
12.00%	Escalation - Q3, 2021		$ 235,188
	Construction COW including Escalation: sub-total		**$ 2,195,084**
5.00%	GC Mobilization		$ 109,754
7.00%	General Conditions		$ 161,339
5.00%	GC Overhead		$ 115,242
1.00%	GC Bonding		$ 23,048
0.44%	GC Insurance		$ 10,141
7.00%	GC Profit		$ 161,339
	Construction & General Conditions : sub-total		**$ 2,775,947**
15.00%	Project Contingency		$ 329,263
10.00%	Construction Contingency		$ 219,508
	Estimate including Contingencies : sub-total		**$ 3,324,717**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 3,324,717**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 3,324,717**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 1,662,359**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 3,324,717**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 4,987,076**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #35 Cedar park**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as substantial per KPFF correspondence. Major work taking place consist of the following: 1. Existing conditions 2. Structural Steel 3. Roofing 4. Shear Walls
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #35 Cedar park							
DIV	MF	Ref		Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 224,525.00**
02	02_00_00		Concrete slab demo; covered play area; allowance	1	LS	$ 2,000.00	$ 2,000.00
02	02_00_00		Excavation for concrete footings; covered play area; allowance	1	LS	$ 3,000.00	$ 3,000.00
02	02_00_00		Backfill and compaction; covered play area; allowance	1	LS	$ 1,500.00	$ 1,500.00
02	02_00_00		Demo orchestra wall; sheet S-2	100	SF	$ 4.75	$ 475.00
02	02_00_00		Demo orchestra floor; sheet S-2	100	SF	$ 7.00	$ 700.00
02	02_00_00		Demo Interior walls Extends past Mez to roof; sheet S-2	1,100	SQ	$ 12.00	$ 13,200.00
02	02_00_00		Demo install, Patch and repair; locker rooms; sheet S-2	1	LS	$ 10,000.00	$ 10,000.00
02	02_00_00		Cabinet removal and salvage; locker rooms; sheet S-2	1	LS	$ 2,000.00	$ 2,000.00
02	02_00_00		Remove electrical for seismic; locker rooms; sheet S-2	1	LS	$ 3,500.00	$ 3,500.00
02	02_00_00		Remove plumbing for seismic; locker rooms; sheet S-2	1	LS	$ 4,000.00	$ 4,000.00
02	02_00_00		Remove and salvage sliding barn door; locker rooms; sheet S-2	1	LS	$ 1,500.00	$ 1,500.00
02	02_00_00		Demo locker room wall; sheet S-2	1,400	SF	$ 6.00	$ 8,400.00
02	02_00_00		Demo locker room floor; sheet S-2	1,800	SF	$ 6.00	$ 10,800.00
02	02_00_00		Demo plumbing fixtures; locker rooms; sheet S-2	1	LS	$ 5,000.00	$ 5,000.00
02	02_00_00		Demo chase wall; locker rooms; sheet S-2	1	LS	$ 7,000.00	$ 7,000.00
02	02_00_00		Demo light fixtures; locker rooms; sheet S-2	1	LS	$ 3,000.00	$ 3,000.00
02	02_00_00		Salvage lockers; locker rooms; sheet S-2	1	LS	$ 3,000.00	$ 3,000.00
02	02_00_00		Demo ceiling (2 rows) of 1'x1' tiles and substrate; cafeteria; sheet S-2	500	SF	$ 7.00	$ 3,500.00
02	02_00_00		Concrete saw cutting and excavation; locker rooms; sheet S-2; allowance	1	LS	$ 15,000.00	$ 15,000.00
02	02_00_00		Demo existing masonite flooring; mezzanine; S-3; allowance	650	SF	$ 3.00	$ 1,950.00
02	02_00_00		Demo existing roofing; existing tar and gravel finish and substrate; for Gym and Cafeteria only; sheet S-3	38,000	SF	$ 2.50	$ 95,000.00
02	02_00_00		Demo cap, curb flashing and reglet flashing; sheet S-3; allowance	1,500	LF	$ 16.00	$ 24,000.00
02	02_00_00		Demo; Tectum; sheet S-3	120	LF	$ 50.00	$ 6,000.00
			CONCRETE				**$ 9,000.00**
03	03_00_00		Concrete patch back; locker rooms; sheet S-2; allowance	1	LS	$ 4,000.00	$ 4,000.00
03	03_00_00		Concrete footings; covered play area; allowance	1	LS	$ 3,500.00	$ 3,500.00
03	03_00_00		Concrete patch back; covered play area; allowance	1	LS	$ 1,500.00	$ 1,500.00
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 637,125.00**
05	05_00_00		Install steel plate at precast wall to foundations; locker rooms; allowance	1	LS	$ 3,000.00	$ 3,000.00
05	05_00_00		Install of in plane and out of plane connections from concrete wall to Diaph; sheet S-3	30	EA	$ 125.00	$ 3,750.00
05	05_00_00		Install out of plane strapping from existing CMU wall to mezzanine; sheet S-3	25	EA	$ 175.00	$ 4,375.00
05	05_00_00		Install attachments for high point; cafeteria; sheet S-4	800	LF	$ 250.00	$ 200,000.00
05	05_00_00		Install attachments for high roof; cafeteria; sheet S-4	300	LF	$ 200.00	$ 60,000.00
05	05_00_00		Install attachments at low point; gym; sheet S-4	900	LF	$ 250.00	$ 225,000.00
05	05_00_00		Install attachments for high low point; gym; S-4	300	LF	$ 250.00	$ 75,000.00
05	05_00_00		Install steel plate strap; gym; S-4	200	LF	$ 55.00	$ 11,000.00
05	05_00_00		Install connections from low plywood roof diap.to conc wall; cafeteria; sheet S-4	200	LF	$ 65.00	$ 13,000.00
05	05_00_00		Install new wall to underside of tectum; gym; sheet S-4	120	LF	$ 225.00	$ 27,000.00
05	05_00_00		Steel bracing, attachments from metal roof the concrete wall and underside of roof deck bracing; covered play area	1	TON	$ 15,000.00	$ 15,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ 280,946.00**
06	06_00_00		Install plywood flooring; mezzanine; S-3; allowance	650	SF	$ 7.00	$ 4,550.00
06	06_00_00		Blocking and 3/8" angle connection; Gym and Cafeteria	4,800	LF	$ 30.00	$ 144,000.00
06	06_00_00		Roofing install 30% of SF; plywood; Cafeteria	3,612	SF	$ 7.00	$ 25,284.00
06	06_00_00		Roofing install; plywood and blocking over Tectum; for Gym	8,926	SF	$ 12.00	$ 107,112.00

KPFF Project #35 Cedar park							
DIV	MF	Ref		Quantity	Unit	Unit Rate $	Total
			THERMAL & MOISTURE PROTECTION				**$ 455,000.00**
07	07_00_00		Install cap, curb flashing and reglet flashing; allowance	1,500	LF	$ 32.00	$ 48,000.00
07	07_00_00		Install new TPO R-30 roofing; J; Gym and Cafeteria	38,000	SF	$ 10.00	$ 380,000.00
07	07_00_00		Install new tectum; N	120	LF	$ 225.00	$ 27,000.00
			OPENINGS				**$ 15,000.00**
08	08_00_00		Apply 3M safety film to existing windows in cafeteria; sheet S-2; allowance	1	LS	$ 15,000.00	$ 15,000.00
			FINISHES				**$ 148,300.00**
09	09_00_00		Ceiling install, Patch and repair; locker rooms; allowance	1	LS	$ 16,000.00	$ 16,000.00
09	09_00_00		Install Interior walls; plywood sheathing/sheetrock and finish on one side of wall; sheet S-2	1,100	SF	$ 22.00	$ 24,200.00
09	09_00_00		Install ceiling (2 rows) of 1'x1' tiles and substrate; sheet S-2	500	SF	$ 14.00	$ 7,000.00
09	09_00_00		Install orchestra wall; sheet S-2	100	SF	$ 7.00	$ 700.00
09	09_00_00		Install orchestra floor; sheet S-2	100	SF	$ 12.00	$ 1,200.00
09	09_00_00		Build back metal stud walls; locker rooms; sheet S-2	3,500	SF	$ 20.00	$ 70,000.00
09	09_00_00		Build back tile wall; sheet S-2	1,400	SF	$ 6.00	$ 8,400.00
09	09_00_00		Build back tile floor; sheet S-2	1,800	SF	$ 6.00	$ 10,800.00
09	09_00_00		Build back chase wall; sheet S-2	1	LS	$ 10,000.00	$ 10,000.00
			SPECIALITIES				**$ 3,000.00**
10	10_00_00		Reinstall barn door; locker rooms; sheet S-2	1	LS	$ 3,000.00	$ 3,000.00
			EQUIPMENT & STORAGE				**$ 9,000.00**
11	11_00_00		Reinstall Cabinets; sheet S-2	1	LS	$ 4,000.00	$ 4,000.00
11	11_00_00		Reinstall Lockers; sheet S-2	1	LS	$ 5,000.00	$ 5,000.00
			PLUMBING				**$ 48,000.00**
22	22_00_00		Reinstall plumbing; locker rooms; sheet S-2; allowance	1	LS	$ 8,000.00	$ 8,000.00
22	22_00_00		Install new plumbing and shower fixtures; two toilets and toilets compartments; locker rooms; sheet S-2; allowance	1	LS	$ 10,000.00	$ 10,000.00
22	22_00_00		Reinstall plumbing for roofing replacement; allowance	1	LS	$ 30,000.00	$ 30,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ 100,000.00**
23	23_00_00		Removal and reinstall HVAC equipment on Mezzanine; allowance	1	LS	$ 40,000.00	$ 40,000.00
23	23_00_00		Removal and reinstall HVAC equipment for roof replacement; allowance	1	LS	$ 60,000.00	$ 60,000.00
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 30,000.00**
26	26_00_00		Electrical outlets and switches; sheet S-2; allowance	1	LS	$ 10,000.00	$ 10,000.00
26	26_00_00		Removal and reinstall of electrical raceways for roof replacement	1	LS	$ 20,000.00	$ 20,000.00
			ESTIMATE TOTAL				**$ 1,959,896**

SUMMARY

Customer: KPFF
Project: Project #38 Highland park
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 241,515
03	Concrete		$ 32,000
04	Masonry		$ -
05	Metals		$ 637,125
06	Wood, Plastics & Composites		$ 310,946
07	Thermal & Moisture Protection		$ 460,000
08	Openings		$ 15,000
09	Finishes		$ 151,300
10	Specialties		$ 3,000
11	Equipment & Storage		$ 9,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 56,000
23	Heating Ventilating & Air Conditioning:		$ 100,000
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 34,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 2,049,886**
12.00%	Escalation - Q3, 2021		$ 245,986
	Construction COW including Escalation: sub-total		**$ 2,295,872**
5.00%	GC Mobilization		$ 114,794
7.00%	General Conditions		$ 168,747
5.00%	GC Overhead		$ 120,533
1.00%	GC Bonding		$ 24,107
0.44%	GC Insurance		$ 10,607
7.00%	GC Profit		$ 168,747
	Construction & General Conditions : sub-total		**$ 2,903,406**
15.00%	Project Contingency		$ 344,381
10.00%	Construction Contingency		$ 229,587
	Estimate including Contingencies : sub-total		**$ 3,477,374**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 3,477,374**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 3,477,374**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 1,738,687**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 3,477,374**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 5,216,061**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #38 Highland park**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as substantial per KPFF correspondence. Major work taking place consist of the following: 1.Existing conditions 2. Structural steel 3. Roofing 4. Structural timber 5. Interior shear wall
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #38 Highland park							
DIV	MF	Ref		Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 241,515.00**
02	02_00_00		Concrete slab demo; covered play area; allowance	1	LS	$ 2,000.00	$ 2,000.00
02	02_00_00		Excavation for concrete footings; covered play area; allowance	1	LS	$ 3,000.00	$ 3,000.00
02	02_00_00		Backfill and compaction; covered play area; allowance	1	LS	$ 1,500.00	$ 1,500.00
02	02_00_00		Demo orchestra wall; sheet S-2	100	SF	$ 4.75	$ 475.00
02	02_00_00		Demo orchestra floor; sheet S-2	100	SF	$ 7.00	$ 700.00
02	02_00_00		Demo Interior walls Extends past Mez to roof; sheet S-2	1,100	SQ	$ 12.00	$ 13,200.00
02	02_00_00		Demo install, Patch and repair; locker rooms; sheet S-2	1	LS	$ 10,000.00	$ 10,000.00
02	02_00_00		Cabinet removal and salvage; locker rooms; sheet S-2	1	LS	$ 2,000.00	$ 2,000.00
02	02_00_00		Remove electrical for seismic; locker rooms; sheet S-2	1	LS	$ 3,500.00	$ 3,500.00
02	02_00_00		Remove plumbing for seismic; locker rooms; sheet S-2	1	LS	$ 4,000.00	$ 4,000.00
02	02_00_00		Remove and salvage sliding barn door; locker rooms; sheet S-2	1	LS	$ 1,500.00	$ 1,500.00
02	02_00_00		Demo locker room wall; sheet S-2	1,400	SF	$ 6.00	$ 8,400.00
02	02_00_00		Demo locker room floor; sheet S-2	1,800	SF	$ 6.00	$ 10,800.00
02	02_00_00		Demo plumbing fixtures; locker rooms; sheet S-2	1	LS	$ 5,000.00	$ 5,000.00
02	02_00_00		Demo chase wall; locker rooms; sheet S-2	1	LS	$ 7,000.00	$ 7,000.00
02	02_00_00		Demo light fixtures; locker rooms; sheet S-2	1	LS	$ 3,000.00	$ 3,000.00
02	02_00_00		Salvage lockers; locker rooms; sheet S-2	1	LS	$ 3,000.00	$ 3,000.00
02	02_00_00		Demo ceiling (2 rows) of 1'x1' tiles and substrate; cafeteria; sheet S-2	500	SF	$ 7.00	$ 3,500.00
02	02_00_00		Concrete saw cutting and excavation; locker rooms; sheet S-2; allowance	1	LS	$ 15,000.00	$ 15,000.00
02	02_00_00		Demo existing masonite flooring; mezzanine; S-3; allowance	650	SF	$ 3.00	$ 1,950.00
02	02_00_00		Demo existing roofing; existing tar and gravel finish and substrate; for Gym and Cafeteria only; sheet S-3	38,000	SF	$ 2.50	$ 95,000.00
02	02_00_00		Demo cap, curb flashing and reglet flashing; sheet S-3; allowance	1,500	LF	$ 16.00	$ 24,000.00
02	02_00_00		Demo; Tectum; sheet S-3	120	LF	$ 50.00	$ 6,000.00
02	02_00_00		Demo existing roofing; entry canopy; allowance	1	LS	$ 5,000.00	$ 5,000.00
02	02_00_00		Concrete slab demo; entry canopy; allowance	600	SF	$ 6.00	$ 3,600.00
02	02_00_00		Excavation for concrete footings; entry canopy; allowance	32	CY	$ 250.00	$ 8,000.00
02	02_00_00		Backfill and compaction; entry canopy; allowance	6	CY	$ 65.00	$ 390.00
			CONCRETE				**$ 32,000.00**
03	03_00_00		Concrete patch back; locker rooms; sheet S-2; allowance	1	LS	$ 4,000.00	$ 4,000.00
03	03_00_00		Concrete footings; covered play area; allowance	1	LS	$ 3,500.00	$ 3,500.00
03	03_00_00		Concrete patch back; covered play area; allowance	1	LS	$ 1,500.00	$ 1,500.00
03	03_00_00		Concrete column reinforcement (encasement) and footings; entry canopy; allowance	28	CY	$ 500.00	$ 14,000.00
03	03_00_00		Concrete patch back; entry canopy; allowance	600	SF	$ 15.00	$ 9,000.00
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 637,125.00**
05	05_00_00		Install steel plate at precast wall to foundations; locker rooms; allowance	1	LS	$ 3,000.00	$ 3,000.00
05	05_00_00		Install of in plane and out of plane connections from concrete wall to Diaph; sheet S-3	30	EA	$ 125.00	$ 3,750.00
05	05_00_00		Install out of plane strapping from existing CMU wall to mezzanine; sheet S-3	25	EA	$ 175.00	$ 4,375.00
05	05_00_00		Install attachments for high point; cafeteria; sheet S-4	800	LF	$ 250.00	$ 200,000.00
05	05_00_00		Install attachments for high roof; cafeteria; sheet S-4	300	LF	$ 200.00	$ 60,000.00
05	05_00_00		Install attachments at low point; gym; sheet S-4	900	LF	$ 250.00	$ 225,000.00
05	05_00_00		Install attachments for high low point; gym; S-4	300	LF	$ 250.00	$ 75,000.00
05	05_00_00		Install steel plate strap; gym; S-4	200	LF	$ 55.00	$ 11,000.00
05	05_00_00		Install connections from low plywood roof diap.to conc wall; cafeteria; sheet S-4	200	LF	$ 65.00	$ 13,000.00
05	05_00_00		Install new wall to underside of tectum; gym; sheet S-4	120	LF	$ 225.00	$ 27,000.00
05	05_00_00		Steel bracing, attachments from metal roof the concrete wall and underside of roof deck bracing; covered play area	1	TON	$ 15,000.00	$ 15,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ 310,946.00**
06	06_00_00		Install plywood flooring; mezzanine; S-3; allowance	650	SF	$ 7.00	$ 4,550.00
06	06_00_00		Blocking and 3/8" angle connection; Gym and Cafeteria	4,800	LF	$ 30.00	$ 144,000.00
06	06_00_00		Roofing install 30% of SF; plywood; Cafeteria	3,612	SF	$ 7.00	$ 25,284.00
06	06_00_00		Roofing install; plywood and blocking over Tectum; for Gym	8,926	SF	$ 12.00	$ 107,112.00
06	06_00_00		FRP; entry canopy; allowance	1	LS	$ 30,000.00	$ 30,000.00

KPFF Project #38 Highland park							
DIV	MF	Ref		Quantity	Unit	Unit Rate $	Total
			THERMAL & MOISTURE PROTECTION				**$ 460,000.00**
07	07_00_00		Install cap, curb flashing and reglet flashing; allowance	1,500	LF	$ 32.00	$ 48,000.00
07	07_00_00		Install new TPO R-30 roofing; J; Gym and Cafeteria	38,000	SF	$ 10.00	$ 380,000.00
07	07_00_00		Install new tectum; N	120	LF	$ 225.00	$ 27,000.00
07	07_00_00		Liquid applied waterproofing; entry canopy; allowance	1	LS	$ 5,000.00	$ 5,000.00
			OPENINGS				**$ 15,000.00**
08	08_00_00		Apply 3M safety film to existing windows in cafeteria; sheet S-2; allowance	1	LS	$ 15,000.00	$ 15,000.00
			FINISHES				**$ 151,300.00**
09	09_00_00		Ceiling install, Patch and repair; locker rooms; allowance	1	LS	$ 16,000.00	$ 16,000.00
09	09_00_00		Install Interior walls; plywood sheathing/sheetrock and finish on one side of wall; sheet S-2	1,100	SF	$ 22.00	$ 24,200.00
09	09_00_00		Install ceiling (2 rows) of 1'x1' tiles and substrate; sheet S-2	500	SF	$ 14.00	$ 7,000.00
09	09_00_00		Install orchestra wall; sheet S-2	100	SF	$ 7.00	$ 700.00
09	09_00_00		Install orchestra floor; sheet S-2	100	SF	$ 12.00	$ 1,200.00
09	09_00_00		Build back metal stud walls; locker rooms; sheet S-2	3,500	SF	$ 20.00	$ 70,000.00
09	09_00_00		Build back tile wall; sheet S-2	1,400	SF	$ 6.00	$ 8,400.00
09	09_00_00		Build back tile floor; sheet S-2	1,800	SF	$ 6.00	$ 10,800.00
09	09_00_00		Build back chase wall; sheet S-2	1	LS	$ 10,000.00	$ 10,000.00
09	09_00_00		Paint columns; entry canopy; allowance	1	LS	$ 3,000.00	$ 3,000.00
			SPECIALITIES				**$ 3,000.00**
10	10_00_00		Reinstall barn door; locker rooms; sheet S-2	1	LS	$ 3,000.00	$ 3,000.00
			EQUIPMENT & STORAGE				**$ 9,000.00**
11	11_00_00		Reinstall Cabinets; sheet S-2	1	LS	$ 4,000.00	$ 4,000.00
11	11_00_00		Reinstall Lockers; sheet S-2	1	LS	$ 5,000.00	$ 5,000.00
			PLUMBING				**$ 56,000.00**
22	22_00_00		Reinstall plumbing; locker rooms; sheet S-2; allowance	1	LS	$ 8,000.00	$ 8,000.00
22	22_00_00		Install new plumbing and shower fixtures; two toilets and toilets compartments; locker rooms; sheet S-2; allowance	1	LS	$ 10,000.00	$ 10,000.00
22	22_00_00		Reinstall plumbing for roofing replacement; allowance	1	LS	$ 30,000.00	$ 30,000.00
22	22_00_00		Plumbing; entry canopy; allowance	1	LS	$ 8,000.00	$ 8,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ 100,000.00**
23	23_00_00		Removal and reinstall HVAC equipment on Mezzanine; allowance	1	LS	$ 40,000.00	$ 40,000.00
23	23_00_00		Removal and reinstall HVAC equipment for roof replacement; allowance	1	LS	$ 60,000.00	$ 60,000.00
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 34,000.00**
26	26_00_00		Electrical outlets and switches; sheet S-2; allowance	1	LS	$ 10,000.00	$ 10,000.00
26	26_00_00		Removal and reinstall of electrical raceways for roof replacement	1	LS	$ 20,000.00	$ 20,000.00
26	26_00_00		Electrical; entry canopy; allowance	1	LS	$ 4,000.00	$ 4,000.00
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 2,049,886**

SUMMARY

Customer: KPFF
Project: Project #39 Meadow Park School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Option 1		Total
02	Existing Conditions		$ 21,990
03	Concrete		$ 17,000
04	Masonry		
05	Metals		$ 60,000
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		
08	Openings		$ -
09	Finishes		$ 3,000
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 10,000
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 6,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
	Construction COW: sub-total		**$ 117,990**
12.00%	Escalation - Q3, 2021		$ 14,159
	Construction COW including Escalation: sub-total		**$ 132,149**
5.00%	GC Mobilization		$ 6,607
7.00%	General Conditions		$ 9,713
5.00%	GC Overhead		$ 6,938
1.00%	GC Bonding		$ 1,388
0.44%	GC Insurance		$ 611
7.00%	GC Profit		$ 9,713
	Construction & General Conditions : sub-total		**$ 167,118**
15.00%	Project Contingency		$ 19,822
10.00%	Construction Contingency		$ 13,215
	Estimate including Contingencies : sub-total		**$ 200,155**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 200,155**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 200,155**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 100,078**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 200,155**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 300,233**

	Option 2		Total
02	Existing Conditions		$ 16,990
03	Concrete		$ 23,000
04	Masonry		$ -
05	Metals		$ -
06	Wood, Plastics & Composites		$ 30,000
07	Thermal & Moisture Protection		$ 5,000
08	Openings		$ -
09	Finishes		$ 3,000
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 8,000
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 4,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
	Construction COW: sub-total		**$ 89,990**
12.00%	Escalation - Q3, 2021		$ 10,799
	Construction COW including Escalation: sub-total		**$ 100,789**
5.00%	GC Mobilization		$ 5,039
7.00%	General Conditions		$ 7,408
5.00%	GC Overhead		$ 5,291
1.00%	GC Bonding		$ 1,058
0.44%	GC Insurance		$ 466
7.00%	GC Profit		$ 7,408
	Construction & General Conditions : sub-total		**$ 127,460**
15.00%	Project Contingency		$ 15,118
10.00%	Construction Contingency		$ 10,079
	Estimate including Contingencies : sub-total		**$ 152,657**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 152,657**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 152,657**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 76,328**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 152,657**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 228,985**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #39 Meadow Park School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with these schools has been classed as minimal per KPFF correspondence. Major work taking place for option 1 consist of the following: 1. New canopy structure Major work taking place for option 2 consist of the following: 1. Concrete 2. Roofing material
03	These estimates are based on the work taking place in 2021. Escalation of 12% has been added to both estimates.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #39 Meadow Park School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 21,990.00**
02	02_00_00		Demo existing canopy's; allowance	1	LS	$ 10,000.00	$ 10,000.00
02	02_00_00		Concrete slab demo	600	SF	$ 6.00	$ 3,600.00
02	02_00_00		Excavation for concrete footings	32	CY	$ 250.00	$ 8,000.00
02	02_00_00		Backfill and compaction	6	CY	$ 65.00	$ 390.00
			CONCRETE				**$ 17,000.00**
03	03_00_00		Concrete footings	16	CY	$ 500.00	$ 8,000.00
03	03_00_00		Concrete patch back	600	SF	$ 15.00	$ 9,000.00
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 60,000.00**
05	05_00_00		Install new metal canopy structures; allowance	4	EA	$ 15,000.00	$ 60,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 3,000.00**
09	09_00_00		Paint columns and canopy's; allowance	1	LS	$ 3,000.00	$ 3,000.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ 10,000.00**
22	22_00_00		Plumbing drainage; allowance	1	LS	$ 10,000.00	$ 10,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 6,000.00**
26	26_00_00		Remove and reinstall lighting; allowance	1	LS	$ 6,000.00	$ 6,000.00
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 117,990**

KPFF Project #39 Meadow Park School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 16,990.00**
02	02_00_00		Demo existing roofing on top of canopy; allowance	1	LS	$ 5,000.00	$ 5,000.00
02	02_00_00		Concrete slab demo	600	SF	$ 6.00	$ 3,600.00
02	02_00_00		Excavation for concrete footings	32	CY	$ 250.00	$ 8,000.00
02	02_00_00		Backfill and compaction	6	CY	$ 65.00	$ 390.00
			CONCRETE				**$ 23,000.00**
03	03_00_00		Concrete column reinforcement (encasement) and footings	28	CY	$ 500.00	$ 14,000.00
03	03_00_00		Concrete patch back	600	SF	$ 15.00	$ 9,000.00
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ -**
05	05_00_00		No scope				$ -
			WOODS, PLASTICS AND COMPOSITES				**$ 30,000.00**
06	06_00_00		FRP Canopy	1	LS	$ 30,000.00	$ 30,000.00
			THERMAL & MOISTURE PROTECTION				**$ 5,000.00**
07	07_00_00		Liquid applied waterproofing; allowance	1	LS	$ 5,000.00	$ 5,000.00
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 3,000.00**
09	09_00_00		Paint columns and canopy's; allowance	1	LS	$ 3,000.00	$ 3,000.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ 8,000.00**
22	22_00_00		Plumbing drainage; allowance	1	LS	$ 8,000.00	$ 8,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 4,000.00**
26	26_00_00		Remove and reinstall lighting; allowance	1	LS	$ 4,000.00	$ 4,000.00
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 89,990**

SUMMARY

Customer: KPFF
Project: Project #40 Mountain View School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect:
CM/GC:

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 102,400
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ 223,400
06	Wood, Plastics & Composites		$ 276,000
07	Thermal & Moisture Protection		$ 230,000
08	Openings		$ -
09	Finishes		$ 5,000
10	Specialties		$ -
11	Equipment & Storage		$ 30,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 10,000
23	Heating Ventilating & Air Conditioning:		$ 60,000
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 25,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 961,800**
12.00%	Escalation - Q3, 2021		$ 115,416
	Construction COW including Escalation: sub-total		**$ 1,077,216**
5.00%	GC Mobilization		$ 53,861
7.00%	General Conditions		$ 79,175
5.00%	GC Overhead		$ 56,554
1.00%	GC Bonding		$ 11,311
0.44%	GC Insurance		$ 4,977
7.00%	GC Profit		$ 79,175
	Construction & General Conditions : sub-total		**$ 1,362,269**
15.00%	Project Contingency		$ 161,582
10.00%	Construction Contingency		$ 107,722
	Estimate including Contingencies : sub-total		**$ 1,631,573**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 1,631,573**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 1,631,573**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 815,786**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 1,631,573**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 2,447,359**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #40 Mountain View School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as moderate per KPFF correspondence. Major work taking place consist of the following: 1. Structural steel 2. Roofing
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #40 Mountain View School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 102,400.00**
02	02_00_00		Demo existing roofing; sheet 40-2; allowance	23,000	SF	$ 4.00	$ 92,000.00
02	02_00_00		Demo cap, curb flashing and reglet flashing; allowance	650	LF	$ 16.00	$ 10,400.00
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 223,400.00**
05	05_00_00		Install continuous steel angle for shear transfer; sheet 40-1	650	LF	$ 100.00	$ 65,000.00
05	05_00_00		Install tension tie with wall anchors @ 48" on center; sheet 40-2	160	EA	$ 60.00	$ 9,600.00
5.0	05_00_00		Install continuous coil strap on existing roof sheathing; sheet 24-2	1,500	LF	$ 20.00	$ 30,000.00
5.0	05_00_00		Install continuous steel angle for shear transfer; sheet 40-2	650	LF	$ 100.00	$ 65,000.00
05	05_00_00		Install cap, curb flashing and reglet flashing; sheet 40-2; allowance	650	LF	$ 32.00	$ 20,800.00
05	05_00_00		Install continuous coil strap on existing roof sheathing; sheet 24-5	550	LF	$ 60.00	$ 33,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ 276,000.00**
06	06_00_00		Roofing install; plywood and blocking over Tectum; for Gym; sheet 40-2	23,000	SF	$ 12.00	$ 276,000.00
			THERMAL & MOISTURE PROTECTION				**$ 230,000.00**
07	07_00_00		Install new TPO roofing; sheet 40-2; allowance	23,000	SF	$ 10.00	$ 230,000.00
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 5,000.00**
09	09_00_00		Install cove base to cover steel attachment; sheet 40-1; allowance	1	LS	$ 5,000.00	$ 5,000.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ 30,000.00**
11	11_00_00		Removal and reinstall of shelving, cabinets and other; allowance	1	LS	$ 30,000.00	$ 30,000.00
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ 10,000.00**
22	22_00_00		Remove and reinstall roof drains and vents; allowance	1	LS	$ 10,000.00	$ 10,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ 60,000.00**
23	23_00_00		Remove and reinstall roof top units; allowance	1	LS	$ 20,000.00	$ 20,000.00
23	23_00_00		Remove and reinstall HVAC ductwork in gym; allowance	1	LS	$ 40,000.00	$ 40,000.00
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 25,000.00**
26	26_00_00		Remove and reinstall raceways on area where roofing will be replaced; allowance	1	LS	$ 25,000.00	$ 25,000.00
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 961,800**

SUMMARY

Customer: KPFF
Project: Project #43 Whitford
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 241,515
03	Concrete		$ 32,000
04	Masonry		$ -
05	Metals		$ 637,125
06	Wood, Plastics & Composites		$ 310,946
07	Thermal & Moisture Protection		$ 460,000
08	Openings		$ 15,000
09	Finishes		$ 151,300
10	Specialties		$ 3,000
11	Equipment & Storage		$ 9,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 56,000
23	Heating Ventilating & Air Conditioning:		$ 100,000
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 34,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 2,049,886**
12.00%	Escalation - Q3, 2021		$ 245,986
	Construction COW including Escalation: sub-total		**$ 2,295,872**
5.00%	GC Mobilization		$ 114,794
7.00%	General Conditions		$ 168,747
5.00%	GC Overhead		$ 120,533
1.00%	GC Bonding		$ 24,107
0.44%	GC Insurance		$ 10,607
7.00%	GC Profit		$ 168,747
	Construction & General Conditions : sub-total		**$ 2,903,406**
15.00%	Project Contingency		$ 344,381
10.00%	Construction Contingency		$ 229,587
	Estimate including Contingencies : sub-total		**$ 3,477,374**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 3,477,374**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 3,477,374**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 1,738,687**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 3,477,374**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 5,216,061**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #43 Whitford**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as substantial per KPFF correspondence. Major work taking place consist of the following: 1.Structural steel 2. Roofing 3. Shear walls
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #43 Whitford							
DIV	MF	Ref		Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 241,515.00**
02	02_00_00		Concrete slab demo; covered play area; allowance	1	LS	$ 2,000.00	$ 2,000.00
02	02_00_00		Excavation for concrete footings; covered play area; allowance	1	LS	$ 3,000.00	$ 3,000.00
02	02_00_00		Backfill and compaction; covered play area; allowance	1	LS	$ 1,500.00	$ 1,500.00
02	02_00_00		Demo orchestra wall; sheet S-2	100	SF	$ 4.75	$ 475.00
02	02_00_00		Demo orchestra floor; sheet S-2	100	SF	$ 7.00	$ 700.00
02	02_00_00		Demo Interior walls Extends past Mez to roof; sheet S-2	1,100	SQ	$ 12.00	$ 13,200.00
02	02_00_00		Demo install, Patch and repair; locker rooms; sheet S-2	1	LS	$ 10,000.00	$ 10,000.00
02	02_00_00		Cabinet removal and salvage; locker rooms; sheet S-2	1	LS	$ 2,000.00	$ 2,000.00
02	02_00_00		Remove electrical for seismic; locker rooms; sheet S-2	1	LS	$ 3,500.00	$ 3,500.00
02	02_00_00		Remove plumbing for seismic; locker rooms; sheet S-2	1	LS	$ 4,000.00	$ 4,000.00
02	02_00_00		Remove and salvage sliding barn door; locker rooms; sheet S-2	1	LS	$ 1,500.00	$ 1,500.00
02	02_00_00		Demo locker room wall; sheet S-2	1,400	SF	$ 6.00	$ 8,400.00
02	02_00_00		Demo locker room floor; sheet S-2	1,800	SF	$ 6.00	$ 10,800.00
02	02_00_00		Demo plumbing fixtures; locker rooms; sheet S-2	1	LS	$ 5,000.00	$ 5,000.00
02	02_00_00		Demo chase wall; locker rooms; sheet S-2	1	LS	$ 7,000.00	$ 7,000.00
02	02_00_00		Demo light fixtures; locker rooms; sheet S-2	1	LS	$ 3,000.00	$ 3,000.00
02	02_00_00		Salvage lockers; locker rooms; sheet S-2	1	LS	$ 3,000.00	$ 3,000.00
02	02_00_00		Demo ceiling (2 rows) of 1'x1' tiles and substrate; cafeteria; sheet S-2	500	SF	$ 7.00	$ 3,500.00
02	02_00_00		Concrete saw cutting and excavation; locker rooms; sheet S-2; allowance	1	LS	$ 15,000.00	$ 15,000.00
02	02_00_00		Demo existing masonite flooring; mezzanine; S-3; allowance	650	SF	$ 3.00	$ 1,950.00
02	02_00_00		Demo existing roofing; existing tar and gravel finish and substrate; for Gym and Cafeteria only; sheet S-3	38,000	SF	$ 2.50	$ 95,000.00
02	02_00_00		Demo cap, curb flashing and reglet flashing; sheet S-3; allowance	1,500	LF	$ 16.00	$ 24,000.00
02	02_00_00		Demo; Tectum; sheet S-3	120	LF	$ 50.00	$ 6,000.00
02	02_00_00		Demo existing roofing; entry canopy; allowance	1	LS	$ 5,000.00	$ 5,000.00
02	02_00_00		Concrete slab demo; entry canopy; allowance	600	SF	$ 6.00	$ 3,600.00
02	02_00_00		Excavation for concrete footings; entry canopy; allowance	32	CY	$ 250.00	$ 8,000.00
02	02_00_00		Backfill and compaction; entry canopy; allowance	6	CY	$ 65.00	$ 390.00
			CONCRETE				**$ 32,000.00**
03	03_00_00		Concrete patch back; locker rooms; sheet S-2; allowance	1	LS	$ 4,000.00	$ 4,000.00
03	03_00_00		Concrete footings; covered play area; allowance	1	LS	$ 3,500.00	$ 3,500.00
03	03_00_00		Concrete patch back; covered play area; allowance	1	LS	$ 1,500.00	$ 1,500.00
03	03_00_00		Concrete column reinforcement (encasement) and footings; entry canopy; allowance	28	CY	$ 500.00	$ 14,000.00
03	03_00_00		Concrete patch back; entry canopy; allowance	600	SF	$ 15.00	$ 9,000.00
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 637,125.00**
05	05_00_00		Install steel plate at precast wall to foundations; locker rooms; allowance	1	LS	$ 3,000.00	$ 3,000.00
05	05_00_00		Install of in plane and out of plane connections from concrete wall to Diaph; sheet S-3	30	EA	$ 125.00	$ 3,750.00
05	05_00_00		Install out of plane strapping from existing CMU wall to mezzanine; sheet S-3	25	EA	$ 175.00	$ 4,375.00
05	05_00_00		Install attachments for high point; cafeteria; sheet S-4	800	LF	$ 250.00	$ 200,000.00
05	05_00_00		Install attachments for high roof; cafeteria; sheet S-4	300	LF	$ 200.00	$ 60,000.00
05	05_00_00		Install attachments at low point; gym; sheet S-4	900	LF	$ 250.00	$ 225,000.00
05	05_00_00		Install attachments for high low point; gym; S-4	300	LF	$ 250.00	$ 75,000.00
05	05_00_00		Install steel plate strap; gym; S-4	200	LF	$ 55.00	$ 11,000.00
05	05_00_00		Install connections from low plywood roof diap.to conc wall; cafeteria; sheet S-4	200	LF	$ 65.00	$ 13,000.00
05	05_00_00		Install new wall to underside of tectum; gym; sheet S-4	120	LF	$ 225.00	$ 27,000.00
05	05_00_00		Steel bracing, attachments from metal roof the concrete wall and underside of roof deck bracing; covered play area	1	TON	$ 15,000.00	$ 15,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ 310,946.00**
06	06_00_00		Install plywood flooring; mezzanine; S-3; allowance	650	SF	$ 7.00	$ 4,550.00
06	06_00_00		Blocking and 3/8" angle connection; Gym and Cafeteria	4,800	LF	$ 30.00	$ 144,000.00
06	06_00_00		Roofing install 30% of SF; plywood; Cafeteria	3,612	SF	$ 7.00	$ 25,284.00
06	06_00_00		Roofing install; plywood and blocking over Tectum; for Gym	8,926	SF	$ 12.00	$ 107,112.00
06	06_00_00		FRP; entry canopy; allowance	1	LS	$ 30,000.00	$ 30,000.00

KPFF Project #43 Whitford							
DIV	MF	Ref		Quantity	Unit	Unit Rate $	Total
			THERMAL & MOISTURE PROTECTION				**$ 460,000.00**
07	07_00_00		Install cap, curb flashing and reglet flashing; allowance	1,500	LF	$ 32.00	$ 48,000.00
07	07_00_00		Install new TPO R-30 roofing; J; Gym and Cafeteria	38,000	SF	$ 10.00	$ 380,000.00
07	07_00_00		Install new tectum; N	120	LF	$ 225.00	$ 27,000.00
07	07_00_00		Liquid applied waterproofing; entry canopy; allowance	1	LS	$ 5,000.00	$ 5,000.00
			OPENINGS				**$ 15,000.00**
08	08_00_00		Apply 3M safety film to existing windows in cafeteria; sheet S-2; allowance	1	LS	$ 15,000.00	$ 15,000.00
			FINISHES				**$ 151,300.00**
09	09_00_00		Ceiling install, Patch and repair; locker rooms; allowance	1	LS	$ 16,000.00	$ 16,000.00
09	09_00_00		Install Interior walls; plywood sheathing/sheetrock and finish on one side of wall; sheet S-2	1,100	SF	$ 22.00	$ 24,200.00
09	09_00_00		Install ceiling (2 rows) of 1'x1' tiles and substrate; sheet S-2	500	SF	$ 14.00	$ 7,000.00
09	09_00_00		Install orchestra wall; sheet S-2	100	SF	$ 7.00	$ 700.00
09	09_00_00		Install orchestra floor; sheet S-2	100	SF	$ 12.00	$ 1,200.00
09	09_00_00		Build back metal stud walls; locker rooms; sheet S-2	3,500	SF	$ 20.00	$ 70,000.00
09	09_00_00		Build back tile wall; sheet S-2	1,400	SF	$ 6.00	$ 8,400.00
09	09_00_00		Build back tile floor; sheet S-2	1,800	SF	$ 6.00	$ 10,800.00
09	09_00_00		Build back chase wall; sheet S-2	1	LS	$ 10,000.00	$ 10,000.00
09	09_00_00		Paint columns; entry canopy; allowance	1	LS	$ 3,000.00	$ 3,000.00
			SPECIALITIES				**$ 3,000.00**
10	10_00_00		Reinstall barn door; locker rooms; sheet S-2	1	LS	$ 3,000.00	$ 3,000.00
			EQUIPMENT & STORAGE				**$ 9,000.00**
11	11_00_00		Reinstall Cabinets; sheet S-2	1	LS	$ 4,000.00	$ 4,000.00
11	11_00_00		Reinstall Lockers; sheet S-2	1	LS	$ 5,000.00	$ 5,000.00
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ 56,000.00**
22	22_00_00		Reinstall plumbing; locker rooms; sheet S-2; allowance	1	LS	$ 8,000.00	$ 8,000.00
22	22_00_00		Install new plumbing and shower fixtures; two toilets and toilets compartments; locker rooms; sheet S-2; allowance	1	LS	$ 10,000.00	$ 10,000.00
22	22_00_00		Reinstall plumbing for roofing replacement; allowance	1	LS	$ 30,000.00	$ 30,000.00
22	22_00_00		Plumbing; entry canopy; allowance	1	LS	$ 8,000.00	$ 8,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ 100,000.00**
23	23_00_00		Removal and reinstall HVAC equipment on Mezzanine; allowance	1	LS	$ 40,000.00	$ 40,000.00
23	23_00_00		Removal and reinstall HVAC equipment for roof replacement; allowance	1	LS	$ 60,000.00	$ 60,000.00
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 34,000.00**
26	26_00_00		Electrical outlets and switches; sheet S-2; allowance	1	LS	$ 10,000.00	$ 10,000.00
26	26_00_00		Removal and reinstall of electrical raceways for roof replacement	1	LS	$ 20,000.00	$ 20,000.00
26	26_00_00		Electrical; entry canopy; allowance	1	LS	$ 4,000.00	$ 4,000.00
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 2,049,886**

SUMMARY

Customer: KPFF
Project: Project #48 Sunset High School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ -
03	Concrete		$ -
04	Masonry		$ -
05	Metals		$ 25,000
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ -
09	Finishes		$ 6,000
10	Specialties		$ -
11	Equipment & Storage		$ -
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 31,000**
12.00%	Escalation - Q4, 2021		$ 3,720
	Construction COW including Escalation: sub-total		**$ 34,720**
5.00%	GC Mobilization		$ 1,736
7.00%	General Conditions		$ 2,552
5.00%	GC Overhead		$ 1,823
1.00%	GC Bonding		$ 365
0.44%	GC Insurance		$ 160
7.00%	GC Profit		$ 2,552
	Construction & General Conditions : sub-total		**$ 43,908**
15.00%	Project Contingency		$ 5,208
10.00%	Construction Contingency		$ 3,472
	Estimate including Contingencies : sub-total		**$ 52,588**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 52,588**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 52,588**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 26,294**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 52,588**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 78,881**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #48 Sunset High School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as minimal per KPFF correspondence. Major work taking place consist of the following: 1.Structrual steel
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #48 Sunset High School							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ -**
02	02_00_00		No scope				$ -
			CONCRETE				**$ -**
03	03_00_00		No scope				$ -
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 25,000.00**
05	05_00_00		Install continuous steel angle for shear transfer; sheet 48-1	250	LF	$ 100.00	$ 25,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 6,000.00**
09	09_00_00		Install extra thick cove base to cover angle attachment; allowance	1	LS	$ 6,000.00	$ 6,000.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ -**
11	11_00_00		No scope				$ -
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 31,000**

SUMMARY

Customer: KPFF
Project: Project #51 Capital Center
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 22,000
03	Concrete		$ 5,600
04	Masonry		$ -
05	Metals		$ 65,000
06	Wood, Plastics & Composites		$ -
07	Thermal & Moisture Protection		$ -
08	Openings		$ -
09	Finishes		$ 17,000
10	Specialties		$ -
11	Equipment & Storage		$ 15,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ -
23	Heating Ventilating & Air Conditioning:		$ -
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ -
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 124,600**
12.00%	Escalation - Q3, 2021		$ 14,952
	Construction COW including Escalation: sub-total		**$ 139,552**
5.00%	GC Mobilization		$ 6,978
7.00%	General Conditions		$ 10,257
5.00%	GC Overhead		$ 7,326
1.00%	GC Bonding		$ 1,465
0.44%	GC Insurance		$ 645
7.00%	GC Profit		$ 10,257
	Construction & General Conditions : sub-total		**$ 176,480**
15.00%	Project Contingency		$ 20,933
10.00%	Construction Contingency		$ 13,955
	Estimate including Contingencies : sub-total		**$ 211,368**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 211,368**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 211,368**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 105,684**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 211,368**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 317,052**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #51 Capital Center**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as substantial per KPFF correspondence. Major work taking place consist of the following: 1.Structural steel
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #51 Capital Center							
DIV	MF	Ref	Description	Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 22,000.00**
02	02_00_00		Saw cutting and excavation for footing and grade beams; Sheet 51-1; allowance	1	LS	$ 4,000.00	$ 4,000.00
02	02_00_00		Demo existing structure for install of concentric braced frame; sheet 51-1; allowance	1	LS	$ 10,000.00	$ 10,000.00
02	02_00_00		Install shoring to support roof for install of concentric braced frame; sheet 51-1; allowance	1	LS	$ 8,000.00	$ 8,000.00
			CONCRETE				**$ 5,600.00**
03	03_00_00		Form, place and finish grade beams; sheet 51-1	8	CY	$ 450.00	$ 3,600.00
03	03_00_00		Form, place and finish spread footings; sheet 51-1	4	CY	$ 500.00	$ 2,000.00
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 65,000.00**
05	05_00_00		Install steel angle for shear transfer; sheet 51-1	350	LF	$ 100.00	$ 35,000.00
05	05_00_00		Install concentric braced frames; sheet 51-1	2	TON	$ 15,000.00	$ 30,000.00
			WOODS, PLASTICS AND COMPOSITES				**$ -**
06	06_00_00		No scope				$ -
			THERMAL & MOISTURE PROTECTION				**$ -**
07	07_00_00		No scope				$ -
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 17,000.00**
09	09_00_00		Install new flooring after install of footings and grade beams; sheet 51-1; allowance	1	LS	$ 7,000.00	$ 7,000.00
09	09_00_00		Install finished wall after install concentric braced frames; sheet 51-1; allowance	1	LS	$ 10,000.00	$ 10,000.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ 15,000.00**
11	11_00_00		Remove and reinstall cabinets and shelving for install steel angle; Sheet 51-1; allowance	1	LS	$ 15,000.00	$ 15,000.00
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ -**
22	22_00_00		No scope				$ -
			HEATING, VENTILATION AND AIR CONDITIONING				**$ -**
23	23_00_00		No scope				$ -
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ -**
26	26_00_00		No scope				$ -
			COMMUNICATIONS				**$ -**
27	27_00_00		No scope				$ -
			ELECTRONIC SAFETY & SECURITY				**$ -**
28	28_00_00		No scope				$ -
			EARTHWORK				**$ -**
31	31_00_00		No scope				$ -
			EXTERIOR IMPROVEMENTS				**$ -**
32	32_00_00		No scope				$ -
			UTILITIES				**$ -**
33	33_00_00		No scope				$ -
			ESTIMATE TOTAL				**$ 124,600**

SUMMARY

Customer: KPFF
Project: Project #52 International School
Date: 23-Mar-20
Revision: 0.0

Estimate: -50/+50%
Estimate Ref: Feasibility
Architect: N/A
CM/GC: N/A

PLANB CONSULTANCY

	Description		Total
02	Existing Conditions		$ 385,185
03	Concrete		$ 163,100
04	Masonry		$ -
05	Metals		$ 241,100
06	Wood, Plastics & Composites		$ 539,320
07	Thermal & Moisture Protection		$ 498,000
08	Openings		$ -
09	Finishes		$ 519,540
10	Specialties		$ -
11	Equipment & Storage		$ 30,000
12	Furnishings		$ -
13	Special Construction		$ -
14	Conveying Equipment		$ -
21	Fire Suppression		$ -
22	Plumbing		$ 30,000
23	Heating Ventilating & Air Conditioning:		$ 60,000
25	Integrated Wiring & Systems		$ -
26	Electrical Generally		$ 70,000
27	Communications		$ -
28	Electronic Safety & Security		$ -
31	Earthwork		$ -
32	Exterior Improvements		$ -
33	Utilities		$ -
	Construction COW: sub-total		**$ 2,536,245**
12.00%	Escalation - Q3, 2021		$ 304,349
	Construction COW including Escalation: sub-total		**$ 2,840,594**
5.00%	GC Mobilization		$ 142,030
7.00%	General Conditions		$ 208,784
5.00%	GC Overhead		$ 149,131
1.00%	GC Bonding		$ 29,826
0.44%	GC Insurance		$ 13,124
7.00%	GC Profit		$ 208,784
	Construction & General Conditions : sub-total		**$ 3,592,272**
15.00%	Project Contingency		$ 426,089
10.00%	Construction Contingency		$ 284,059
	Estimate including Contingencies : sub-total		**$ 4,302,421**
0.00%	Art Allowance		$ -
	ESTIMATE TOTAL		**$ 4,302,421**
0.00%	Sales Tax		$ -
	ESTIMATE TOTAL (inc Sales Tax)		**$ 4,302,421**
	Estimated Construction Contract Value (COW, GC's and Contingencies) Low Range	**-50%**	**$ 2,151,211**
	Estimated Construction Contract Value (COW, GC & Contingencies)		**$ 4,302,421**
	Estimated Construction Contract Value (COW, GC's and Contingencies) High Range	**50%**	**$ 6,453,632**

PROJECT INFORMATION

Customer:	**KPFF**
Project:	**Project #52 International School**
Date:	**03/23/20**
Estimate Ref:	**Seismic Upgrades**
Estimate Name:	**Structural Seismic Upgrades**
Revision:	**0.0**
Scope Rev	**0**

PLANB CONSULTANCY

BASIS OF ESTIMATE

01	This estimates based on the scope of work document provided by KPFF on 1/28/2020
02	This is a Class 5 Feasibility Budget Estimate compiled for the basis of obtaining funding to carry out essential seismic upgrades. The scope of work with this school has been classed as substantial per KPFF correspondence. Major work taking place consist of the following: 1. Concrete 2. Structrual steel 3. Roofing 4. Shear walls
03	The estimate is based on the work taking place in 2021. Escalation of 12% has been added to the estimate.
04	This estimate if for the scope that is outlined for this particular school only.
05	Only the provided SOW was priced. All other associated scope is excluded from this estimate.
06	This estimate does not include any ADA upgrades that may be required.

KPFF Project #52 International School							
DIV	MF	Ref		Quantity	Unit	Unit Rate $	Total
			EXISTING CONDITIONS				**$ 385,185.00**
02	02_00_00		Demo existing classroom demising walls; sheet 52-1; allowance	2,000	SF	$ 10.00	$ 20,000.00
02	02_00_00		Demo ceiling; sheet 52-1; allowance	1,200	SF	$ 7.00	$ 8,400.00
02	02_00_00		Demo existing classroom demising walls; sheet 52-2; allowance	650	SF	$ 10.00	$ 6,500.00
02	02_00_00		Demo ceiling; sheet 52-2; allowance	400	SF	$ 7.00	$ 2,800.00
02	02_00_00		Slot gym floor for access to install footings and stem wall; sheet 52-3; allowance	1	LS	$ 5,000.00	$ 5,000.00
02	02_00_00		Demo existing classroom demising walls; sheet 52-4; allowance	350	SF	$ 10.00	$ 3,500.00
02	02_00_00		Demo ceiling; sheet 52-4; allowance	510	SF	$ 7.00	$ 3,570.00
02	02_00_00		Demo existing classroom demising walls; sheet 52-5; allowance	1,300	SF	$ 10.00	$ 13,000.00
02	02_00_00		Demo ceiling; sheet 52-5; allowance	2,000	SF	$ 7.00	$ 14,000.00
02	02_00_00		Demo of electrical where wall are being demolished; allowance	1	LS	$ 15,000.00	$ 15,000.00
02	02_00_00		Demo existing roofing; existing tar and gravel finish and substrate; sheet 52-6; allowance	45,000	SF	$ 4.00	$ 180,000.00
02	02_00_00		Demo cap, curb flashing and reglet flashing; sheet 52-6; allowance	1,500	LF	$ 16.00	$ 24,000.00
02	02_00_00		Remove and salvage ceiling tiles; sheet 52-7; allowance	4,000	SF	$ 2.00	$ 8,000.00
02	02_00_00		Remove and salvage ceiling tiles; sheet 52-8; allowance	6,000	SF	$ 2.00	$ 12,000.00
02	02_00_00		Concrete slab demo; sheet 52-1; allowance	800	SF	$ 12.00	$ 9,600.00
02	02_00_00		Excavation for concrete footings; sheet 52-1; allowance	120	CY	$ 180.00	$ 21,600.00
02	02_00_00		Backfill and compaction; sheet 52-1; allowance	20	CY	$ 65.00	$ 1,300.00
02	02_00_00		Concrete slab demo; sheet 52-2; allowance	170	SF	$ 12.00	$ 2,040.00
02	02_00_00		Excavation for concrete footings; sheet 52-2; allowance	25	CY	$ 180.00	$ 4,500.00
02	02_00_00		Backfill and compaction; sheet 52-2; allowance	5	CY	$ 65.00	$ 325.00
02	02_00_00		Concrete slab demo; sheet 52-4; allowance	140	SF	$ 12.00	$ 1,680.00
02	02_00_00		Excavation for concrete footings; sheet 52-4; allowance	15	CY	$ 180.00	$ 2,700.00
02	02_00_00		Backfill and compaction; sheet 52-4; allowance	2	CY	$ 65.00	$ 130.00
02	02_00_00		Concrete slab demo; sheet 52-5; allowance	520	SF	$ 12.00	$ 6,240.00
02	02_00_00		Excavation for concrete footings; sheet 52-5; allowance	100	CY	$ 180.00	$ 18,000.00
02	02_00_00		Backfill and compaction; sheet 52-5; allowance	20	CY	$ 65.00	$ 1,300.00
			CONCRETE				**$ 163,100.00**
03	03_00_00		Concrete patch back for strip footings; sheet 52-1; allowance	800	SF	$ 20.00	$ 16,000.00
03	03_00_00		Concrete strip footings; sheet 52-1; allowance	100	CY	$ 500.00	$ 50,000.00
03	03_00_00		Concrete patch back for strip footings; sheet 52-2; allowance	170	SF	$ 20.00	$ 3,400.00
03	03_00_00		Concrete strip footings; sheet 52-2; allowance	20	CY	$ 500.00	$ 10,000.00
03	03_00_00		Concrete strip footings and stem wall; sheet 52-3; allowance	40	CY	$ 600.00	$ 24,000.00
03	03_00_00		Concrete patch back for strip footings; sheet 52-4; allowance	140	SF	$ 20.00	$ 2,800.00
03	03_00_00		Concrete strip footings; sheet 52-4; allowance	13	CY	$ 500.00	$ 6,500.00
03	03_00_00		Concrete patch back for strip footings; sheet 52-5; allowance	520	SF	$ 20.00	$ 10,400.00
03	03_00_00		Concrete strip footings; sheet 52-5; allowance	80	CY	$ 500.00	$ 40,000.00
			MASONRY				**$ -**
04	04_00_00		No scope				$ -
			METALS				**$ 241,100.00**
05	05_00_00		Install clips for extending complete load path for existing shear walls; sheet 52-1; allowance	720	EA	$ 40.00	$ 28,800.00
05	05_00_00		Install clips for extending complete load path for existing shear walls; sheet 52-2; allowance	200	EA	$ 40.00	$ 8,000.00
05	05_00_00		Install clips at truss line top and bottom; sheet 52-3; allowance	1	LS	$ 20,000.00	$ 20,000.00
05	05_00_00		Install clips for extending complete load path for existing shear walls; sheet 52-4; allowance	300	EA	$ 40.00	$ 12,000.00
05	05_00_00		Install clips for extending complete load path for existing shear walls; sheet 52-5; allowance	1,120	EA	$ 40.00	$ 44,800.00
05	05_00_00		Install out of plane wall anchor to CMU and welded to roof joist; sheet 52-7; allowance	33	LF	$ 1,500.00	$ 49,500.00
05	05_00_00		Install out of plane wall anchor to CMU and welded to roof joist; sheet 52-7; allowance	52	EA	$ 1,500.00	$ 78,000.00

KPFF Project #52 International School							
DIV	MF	Ref		Quantity	Unit	Unit Rate $	Total
			WOODS, PLASTICS AND COMPOSITES				**$ 539,320.00**
06	06_00_00		Install wood blocking for clips; sheet 52-1; allowance	720	EA	$ 8.00	$ 5,760.00
06	06_00_00		Provide complete load path for existing shear walls; extend sheathing to roof; sheet 52-1; allowance	1,300	SF	$ 22.00	$ 28,600.00
06	06_00_00		Provide complete load path for existing shear walls; extend sheathing to roof; sheet 52-1; allowance	700	SF	$ 22.00	$ 15,400.00
06	06_00_00		Install wood blocking for clips; sheet 52-2; allowance	200	EA	$ 8.00	$ 1,600.00
06	06_00_00		Install wood blocking for clips; sheet 52-3; allowance	1	LS	$ 10,000.00	$ 10,000.00
06	06_00_00		Install plywood over gym floor; sheet 52-3; allowance	5,000	SF	$ 7.00	$ 35,000.00
06	06_00_00		Provide complete load path for existing shear walls; extend sheathing to roof; sheet 52-4; allowance	1,100	SF	$ 22.00	$ 24,200.00
06	06_00_00		Install wood blocking for clips; sheet 52-4; allowance	300	EA	$ 8.00	$ 2,400.00
06	06_00_00		Provide complete load path for existing shear walls; extend sheathing to roof; sheet 52-5; allowance	4,200	SF	$ 22.00	$ 92,400.00
06	06_00_00		Install wood blocking for clips; sheet 52-5; allowance	1,120	EA	$ 8.00	$ 8,960.00
06	06_00_00		Roofing install plywood; sheet 52-6; allowance	45,000	SF	$ 7.00	$ 315,000.00
			THERMAL & MOISTURE PROTECTION				**$ 498,000.00**
07	07_00_00		Install cap, curb flashing and reglet flashing; sheet 52-6; allowance	1,500	LF	$ 32.00	$ 48,000.00
07	07_00_00		Install new TPO R-30 roofing; sheet 52-6; allowance	45,000	SF	$ 10.00	$ 450,000.00
			OPENINGS				**$ -**
08	08_00_00		No scope				$ -
			FINISHES				**$ 519,540.00**
09	09_00_00		Ceiling install, Patch and repair; sheet 52-1; allowance	1,200	SF	$ 14.00	$ 16,800.00
09	09_00_00		Install Interior walls; 2"x4" stud wall, plywood sheathing/sheetrock and finish on both side of wall; sheet 52-1; allowance	3,000	SF	$ 60.00	$ 180,000.00
09	09_00_00		Ceiling install, Patch and repair; sheet 52-2; allowance	400	SF	$ 14.00	$ 5,600.00
09	09_00_00		Install Interior walls; 2"x4" stud wall, plywood sheathing/sheetrock and finish on both side of wall; sheet 52-2; allowance	650	SF	$ 60.00	$ 39,000.00
09	09_00_00		Finish gym floor; sheet 52-3; allowance	1	LS	$ 50,000.00	$ 50,000.00
09	09_00_00		Ceiling install, Patch and repair; sheet 52-4; allowance	510	SF	$ 14.00	$ 7,140.00
09	09_00_00		Install Interior walls; 2"x4" stud wall, plywood sheathing/sheetrock and finish on both side of wall; sheet 52-4; allowance	550	SF	$ 60.00	$ 33,000.00
09	09_00_00		Ceiling install, Patch and repair; sheet 52-5; allowance	2,000	SF	$ 14.00	$ 28,000.00
09	09_00_00		Install Interior walls; 2"x4" stud wall, plywood sheathing/sheetrock and finish on both side of wall; sheet 52-5; allowance	2,000	SF	$ 60.00	$ 120,000.00
09	09_00_00		Reinstall salvaged ceiling tiles; sheet 52-7; allowance	4,000	SF	$ 4.00	$ 16,000.00
09	09_00_00		Reinstall salvaged ceiling tiles; sheet 52-8; allowance	6,000	SF	$ 4.00	$ 24,000.00
			SPECIALITIES				**$ -**
10	10_00_00		No scope				$ -
			EQUIPMENT & STORAGE				**$ 30,000.00**
11	11_00_00		Reinstall cabinets, counters and shelving	1	LS	$ 30,000.00	$ 30,000.00
			FURNISHINGS				**$ -**
12	12_00_00		No scope				$ -
			SPECIAL CONSTRUCTION				**$ -**
13	13_00_00		No scope				$ -
			CONVEYING EQUIPMENT				**$ -**
14	14_00_00		No scope				$ -
			FIRE SUPPRESSION				**$ -**
21	21_00_00		No scope				$ -
			PLUMBING				**$ 30,000.00**
22	22_00_00		Reinstall plumbing for roofing replacement; allowance	1	LS	$ 30,000.00	$ 30,000.00
			HEATING, VENTILATION AND AIR CONDITIONING				**$ 60,000.00**
23	23_00_00		Removal and reinstall HVAC equipment for roof replacement; allowance	1	LS	$ 60,000.00	$ 60,000.00
			INTEGRATED AUTOMATION				**$ -**
25	25_00_00		No scope				$ -
			ELECTRICAL				**$ 70,000.00**
26	26_00_00		Electrical outlets and switches where entire walls are being demolished; allowance	1	LS	$ 50,000.00	$ 50,000.00
26	26_00_00		Removal and reinstall of electrical raceways for roof replacement	1	LS	$ 20,000.00	$ 20,000.00
			ESTIMATE TOTAL				**$ 2,536,245**