DATE: 09/11/98 TIME: 12:55:20
DESIGN FILE: I:\ligo\site\st\bts601.dgz

not be reproduced, copied, loaned, exhibited, or used in any other way, except by written consent from PARSONS to the borrower.

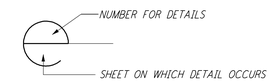
This document and the design it covers are the property of PARSONS. They are loaned only with the borrower's expressed written agreement that they will

ABBREVIATIONS

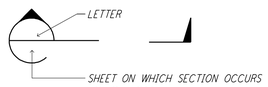
AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
B/B	BACK TO BACK
B/P	BASE PLATE
BM	BEAM
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STEEL
BRCG	BRACING
C	CAMBER
CC OR C/C	CENTER TO CENTER
CG	CENTER OF GRAVITY
CJ	CONSTRUCTION JOINT
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CU	CUBIC
DET	DETAIL
DIAG	DIAGONAL
DIM	DIMENSION
DL	DEAD LOAD
DO	DITTO
DWG	DRAWING
DWL	DOWEL
EA	EACH
EF	EACH FACE
EL	ELEVATION
ENCL	ENCLOSURE
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ETC	ETCETERA
EW	EACH WAY
EXIST	EXISTING
FD	FLOOR DRAIN
FDN	FOUNDATION
FIN	FINISH
FLR	FLOOR
FLSHG	FLASHING
FOC	FACE OF CONCRETE
FRMG	FRAMING
FS	FAR SIDE
FT	FOOT, FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GR	GRADE
HORIZ	HORIZONTAL
HP	HIGH POINT
HR	HANDRAIL
HSB	HIGH STRENGTH BOLT
ID	INSIDE DIAMETER
IN	INCH
INFO	INFORMATION
INSUL	INSULATION
JST	JOIST
JT	JOINT
LB	POUND
LG	LENGTH
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LVEA	LASER AND VACUUM EQUIPTMENT AREA
LWC	LIGHT WEIGHT CONCRETE
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MPH	MILES PER HOUR
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OSB	OPERATIONS SUPPORT BUILDING
OTO	OUT TO OUT
PCF	POUNDS PER CUBIC FOOT
PL	PLATE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
R	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REINF OR BARS	REINFORCING STEEL
REQD	REQUIRED
REV	REVISE OR REVISION
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SLV	SHORT LEG VERTICAL
SPA	SPACED
ST STL	STAINLESS STEEL
STD	STANDARD
STIF	STIFFENER
SYM	SYMMETRICAL
T&B	TOP AND BOTTOM
THK	THICKNESS
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL
W/	WITH
WPF	WATER PROOF
WP	WORKING POINT
WS	WELDED STUD
WT	WEIGHT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH

SYMBOLS

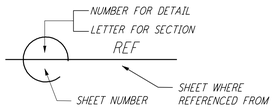
L	ANGLE
C	CHANNEL
PL	PLATE
℄	CENTER LINE
Ø	DIAMETER or ROUND
⌖	WORK POINT OR ELEV BENCH MARK
△	DELTA
⌑	SQUARE FEET
#	NUMBER or POUND
&	AND
@	AT



DETAIL



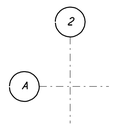
SECTION



DET/SECT CROSS REF

ROOM NUMBER

REVISION



COLUMN LINES

MATERIALS LEGEND

STEEL (LARGE SCALE SECTION)	SPAN DIRECTION
CONCRETE	WELDED WIRE FABRIC
CONCRETE MASONRY UNIT	EARTH
FLOOR OPENING	STRUCTURAL BACKFILL
GRATING	

NOTES

INSPECTIONS AND APPROVALS

GENERAL

1. PROFESSIONAL SOILS ENGINEER REGISTERED IN THE STATE OF WASHINGTON SHALL INSPECT AND APPROVE ALL FOOTING EXCAVATIONS PRIOR TO PLACING CONCRETE ACCORDING TO SECTION 2200 OF THE SPECIFICATION.
2. CONTINUOUS INSPECTION BY AN INSPECTOR, APPROVED BY THE DEPARTMENT OF BUILDING AND SAFETY SHALL BE PROVIDED FOR THE FOLLOWING FIELD WORK:
   - A) PLACEMENT OF COMPACTED FILL.
   - B) PLACEMENT OF CONCRETE AND REINFORCING STEEL AND ANCHOR BOLTS.
   - C) EXPANSION TYPE CONCRETE ANCHORS.
   - D) FIELD WELDING
   - E) INSTALLATION OF HIGH STRENGTH BOLTS
3. THE CONSTRUCTION SHALL COMPLY WITH REQUIREMENTS OF THE BUILDING CODE.
4. ALL STRUCTURAL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE JOB SPECIFICATIONS AND STANDARDS.
5. FOR TYPICAL DETAILS SEE DRAWINGS BT-S-602 THROUGH BT-S-603.
6. CONTRACTOR SHALL PROVIDE TEMPORARY BRACING AND SHORING AS REQUIRED TO MAINTAIN THE ALIGNMENT OF BUILDING AND RETAINING WALLS UNTIL ALL CONNECTIONS ARE COMPLETED AND SLAB AND WALLS CONSTRUCTED.
7. PRIOR TO PLACING FOUNDATIONS & SLABS, REFER TO UNDERDRAIN SYSTEM DRAWINGS, ARCHITECTURAL DRAWINGS FOR SLOPES AND ELECTRICAL DRAWINGS FOR GROUNDING.
8. FOR BUILDING COLUMN LOCATION COORDINATES SEE CIVIL DRAWINGS.

FOUNDATIONS

1. FOUNDATION AND SOIL REQUIREMENTS ARE BASED ON SOIL REPORT BY DAMES AND MOORE; REPORT NO. 177-004-0016 DATED: FEBRUARY 10, 1993.

CONCRETE

1. ALL CONCRETE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF DIVISION 3 (CONCRETE) OF THE SPECIFICATIONS. (REGULAR WEIGHT AND LIGHT WEIGHT)
2. STRUCTURAL CONCRETE SHALL HAVE AN ULTIMATE COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS UNLESS OTHERWISE NOTED. ALL CONCRETE SHALL BE REGULAR WEIGHT CONCRETE UNLESS OTHERWISE NOTED.
3. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A615 GRADE 60 (UNLESS OTHERWISE NOTED). SPLICES AND HOOKS SHALL CONFORM TO ACI 318-89. SPLICES SHALL BE CLASS B UNLESS OTHERWISE NOTED. MINIMUM LAP SHALL BE 30 DIAMETERS. STIRRUP AND TIE HOOKS SHALL HAVE 135-DEGREE BENDS.
4. LOCATION OF ALL CONSTRUCTION JOINTS OR OTHER TYPES OF JOINTS, OTHER THAN SPECIFIED, SHALL BE APPROVED BY THE CONSTRUCTION MANAGER BEFORE PLACING.
5. MINIMUM CONCRETE COVER PROVIDED FOR REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE SPECIFICATION.
6. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND OTHER INSERTS SHALL BE WELL SECURED IN POSITION AND INSPECTED BY QUALIFIED INSPECTOR PRIOR TO PLACING CONCRETE.
7. EXISTING PAVEMENT SHALL BE SAW CUT AND BROKEN OUT TO CLEAN, STRAIGHT EDGES OF DEMOLITION AREAS.
8. EXPOSED EDGES OF CONCRETE SHALL HAVE A $\frac{3}{4}$" CHAMFER UNLESS OTHERWISE NOTED ON DRAWINGS.
9. EXCAVATING AND BACKFILLING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.
10. CONSTRUCTION JOINTS SHALL BE CLEANED AND ROUGHENED TO $\frac{1}{4}$" AMPLITUDE.
11. PROVIDE REINFORCEMENT IN WALLS AT CORNER AND INTERSECTIONS AS PER DETAIL 2/BT-S-602

ANCHOR BOLTS

1. FOR ANCHOR BOLT DETAILS SEE DRAWING BT-S-603

SCOPE OF WORK

CONCRETE WORK FOR MID STATION "B" AND END STATION "B" AS FOLLOWS:
- A. ALL FOUNDATIONS, STRIP FOOTING AND 30 INCHES THICK EQUIPMENT FOUNDATION.
- B. ALL ANCHOR BOLTS AND DOWELS.
- C. SLAB ON GRADE.

LIGO-D960735-A-O

REFERENCES

DRAWING NO.	DESCRIPTION

REVISIONS

NO.	DATE	BY	CHKD	ENGR	PROJ	DESCRIPTION
A	4-19-96	MCS	KS	BP		CHANGE ORDER #4

DRAWN	MCS
CHECKED	
ENGINEER	
PROJ	

PARSONS
100 WEST WALNUT STREET
PASADENA, CALIFORNIA

LIGO
CALIFORNIA INSTITUTE OF TECHNOLOGY
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

LASER INTERFEROMETER GRAVITATIONAL-WAVE OBSERVATORY
BTE SITEWORK & FABRICATION - HANFORD, WA

TITLE	SCALE	CONTRACT NUMBER	PROJECT NUMBER
STRUCTURAL GENERAL NOTES, ABBREVIATIONS & LEGEND	NONE	PP150969	8094

SHEET NUMBER: BT-S-601 REVISIONS: A

LIGOBTF.BDR

Fri Sep 11 12:54:43 1998 c:\plot\scf\S3-30.scf N:\DUEUES\E30B2\STR01.PRF