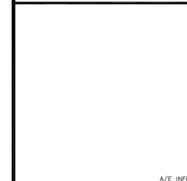
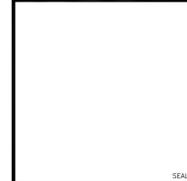
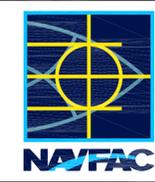


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DATE	DESCRIPTION
5/11/16	GENERAL REVISIONS



APPROVED

FOR COMMANDER NAVFAC
ACTIVITY
HERM RAWLINGS
SATISFACTORY TO DATE MM/DD/YY
DES DAY DRW AK CHK TLD
PM/DM JTL/APK
BRANCH MANAGER
CHIEF ENG/ARCH RLV
FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
NAVFAC COMMAND
NAVAL FACILITIES ENGINEERING COMMAND
HAMPSON ROADS IPT
SURFACE COMBAT SYSTEM CENTER
NORFOLK VA
WALLOPS ISLAND, VA
HOUSING WELCOME CENTER
INDEX OF DRAWINGS

SCALE: NONE
PROJECT NO.: 1366574
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12708174
SHEET 2 OF 70
G-002

FILE NAME: P:\VA\Wallops Island\WALCON\2016_1366574_P238_DBB_Housing>WelcomeCenter\B_Design\Drawings\Sheet Files\01_General\1238-1366574-G-002.dwg LAYOUT NAME: G-002 PLOTTED: Thursday, May 12, 2016 - 3:32pm USER: allen.kline

UNCLASSIFIED//FOR OFFICIAL USE ONLY

THE EROSION AND SEDIMENT CONTROL SHOWN ON THIS PLAN IS PRELIMINARY AND IS FOR BIDDING PURPOSES ONLY. THE GOVERNMENT SHALL PROVIDE THE APPROVED EROSION & SEDIMENT CONTROL PLAN FOR CONSTRUCTION.

SHEET NOTES

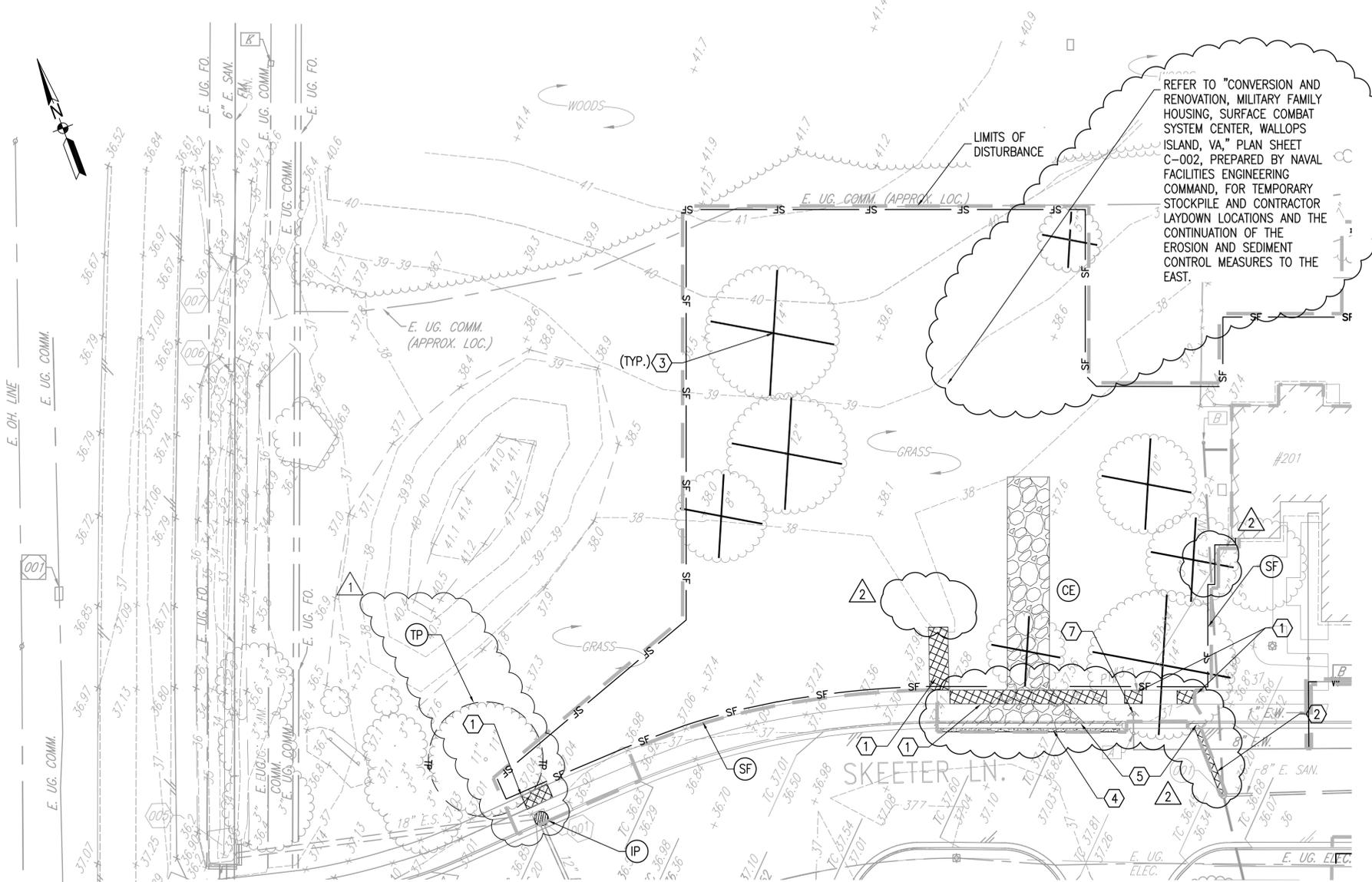
- REFER TO SHEET C-001 FOR GENERAL NOTES, SURVEY NOTES, DEMOLITION NOTES AND LEGEND.
- REFER TO SHEET CE101 FOR SURVEY UTILITY SCHEDULE, STORM SCHEDULE, UTILITY NOTES, AND SITE NOTES.

EROSION & SEDIMENT CONTROL GENERAL NOTES

- UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC25-840 EROSION AND SEDIMENT CONTROL REGULATIONS.
- THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.
- ALL APPROPRIATE EROSION CONTROL MEASURES SUCH AS, BUT NOT LIMITED TO, TREE PROTECTION, SILT FENCE, CONSTRUCTION ENTRANCE, SEDIMENT TRAPPING FACILITIES, AND INLET PROTECTION SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION AND MUST BE REVIEWED AND APPROVED BY THE INSPECTOR BEFORE ANY CLEARING OPERATIONS BEGIN.
- A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND LAND DISTURBANCE PERMIT MUST BE MAINTAINED AT THE SITE FOR THE DURATION OF ALL CONSTRUCTION AND LAND-DISTURBING ACTIVITIES.
- THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL APPROVED MEASURES AS SHOWN ON THE DRAWINGS. ANY ADDITIONAL MEASURES DEEMED REQUIRED BY THE PLAN APPROVING AUTHORITY SHALL BECOME PART OF THE EROSION AND SEDIMENT CONTROL PLAN FOR THE PROPERTY. ALL FIELD CHANGES MUST BE APPROVED BY THE PLAN APPROVING AUTHORITY.
- DURING DEWATERING OPERATIONS, WATER SHALL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
- THE CONTRACTOR SHALL CONSTRUCT AND MAINTAIN ALL MEASURES TO PREVENT SOIL FROM ERODING ONTO ADJACENT PROPERTY, STREETS, DRAINAGE SYSTEMS, AND WATERWAYS. ALL DEVICES SHALL BE CLEANED OF MUD, DEBRIS, AND OTHER ERODED MATERIAL DURING THE SITE CLEARING AND DEVELOPMENT. PERFORM INSPECTION OF DEVICES DURING OR IMMEDIATELY FOLLOWING INITIAL INSTALLATION AT LEAST ONCE IN EVERY TWO (2) WEEKS PERIOD AND WITHIN 48 HOURS FOLLOWING ANY RUNOFF PRODUCING STORM EVENT. ALL INSPECTION AND MAINTENANCE ACTIVITIES SHALL BE DOCUMENTED AND AVAILABLE FOR REVIEW AT THE PLAN REVIEWING AUTHORITIES REQUEST.
- TEMPORARY AND PERMANENT SEEDING OPERATIONS SHALL BE INITIATED WITHIN SEVEN (7) DAYS AFTER REACHING FINAL GRADE OR UPON SUSPENSION OF GRADING OPERATIONS FOR ANTICIPATED DURATION OF GREATER THAN FOURTEEN (14) DAYS OR UPON COMPLETION OF GRADING OPERATIONS FOR A SPECIFIC AREA.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE KEPT IN PLACE FOR THE DURATION OF THE CLEARING AND CONSTRUCTION OPERATIONS AND AT A MAXIMUM FOR THE SPECIFIED TIME FOR EACH MEASURE AS IDENTIFIED IN THE VESC HANDBOOK, OR WHEN FULL STABILIZATION HAS OCCURRED FOR THE ENTIRE SITE. A FINAL INSPECTION BY THE PLAN APPROVING AUTHORITY SHALL DETERMINE WHEN THIS FACT IS ACCOMPLISHED AND ALL TEMPORARY MEASURES AND DEVICES CAN BE REMOVED.
- THE CONTRACTOR SHALL MONITOR AND TAKE PRECAUTIONS TO CONTROL DUST AND OTHER AIR POLLUTANTS, INCLUDING BUT NOT LIMITED TO USING WATER OR CHEMICALS, LIMITING THE NUMBER OF VEHICLES ALLOWED ONSITE, MINIMIZING THE OPERATING SPEED OF ALL VEHICLES, ETC. ALSO, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE DAILY SWEEPING SHOULD SEDIMENT ACCUMULATE ON PAVED SURFACES.

DEMOLITION KEYNOTES

- REMOVE CONCRETE SIDEWALK TO NEAREST JOINT
- SAW CUT AND REMOVE ASPHALT PAVEMENT FOR UTILITY INSTALLATION
- REMOVE TREE
- SAW CUT AND REMOVE ASPHALT PAVEMENT FOR TRANSITION TO NEW ENTRANCE
- REMOVE CONCRETE CURB AND GUTTER
- NOT USED
- RELOCATE EXISTING FIRE HYDRANT FOR WATER SERVICE CONNECTION



DEMOLITION LEGEND

	REMOVE TREE AND OTHER SITE FEATURE DEMOLITION
	DEMOLITION OF ASPHALT / CONCRETE PAVEMENT, CONCRETE SIDEWALK
	DEMOLITION OF CURB / CURB & GUTTER
	DEMOLITION OF UTILITY LINES
	MILL EXISTING ASPHALT PAVEMENT SURFACE

EROSION & SEDIMENT CONTROL LEGEND

CONSTRUCTION ENTRANCE	
INLET PROTECTION	
SILT FENCE	
TREE PROTECTION	
LIMITS OF DISTURBANCE	
CULVERT INLET PROTECTION	
OUTLET PROTECTION	

REGISTERED LAND DISTURBER

THE CONTRACTOR SELECTED TO COMPLETE THE REGULATED LAND DISTURBING ACTIVITY AS SHOWN ON THESE DRAWINGS IS RESPONSIBLE FOR IMPLEMENTING THE APPROVED EROSION AND SEDIMENT CONTROL PLAN IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. PRIOR TO THE COMMENCEMENT OF THIS ACTIVITY, IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL LAW, THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL HOLDING A CERTIFICATE OF COMPETENCE WITH THE COMMONWEALTH OF VIRGINIA AS THE PERSON RESPONSIBLE FOR CARRYING OUT THE APPROVED PLAN, AND PROVIDE THE NAME OF THAT INDIVIDUAL TO THE PLAN APPROVING AUTHORITY.

PHASE 1 - EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1" = 20'



GRAPHIC SCALE



APPROVED	DATE	APPR
FOR COMMANDER NAIFAC	05/11/16	
ACTIVITY	01/21/16	
HERM RAWLINGS		
SATISFACTORY TO DATE	MM/DD/YY	
DES: BSS	DRW: BSS	CHK:
PM/DM: JTL/APK		
BRANCH MANAGER		
CHIEF ENG/ARCH: RLW		
FIRE PROTECTION	DPS	
NAVY FACILITIES ENGINEERING COMMAND	NORFOLK, VA	
NAVAL FACILITIES ENGINEERING COMMAND	WALLOPS ISLAND, VA	
HAMPTON ROADS DISTRICT	SURFACE COMBAT SYSTEM CENTER	
	HOUSING WELCOME CENTER	
	PHASE 1 EROSION & SEDIMENT CONTROL AND DEMOLITION PLAN	
SCALE: AS SHOWN	PROJECT NO.: 1366574	
CONSTR. CONTR. NO.	12708183	
NAVAFAC DRAWING NO.		
SHEET 11 OF 70		
CE110		
DRAWING REVISION: 10 MARCH 2009		

FILE NAME: P:\VA\Wallops Island\MILCON\2016_1366574_P23E_DBB_HousingWelcomeCenter_B_Design\Drawings\Sheet Files\05_Civil\23E-1366574-CE110.dwg LAYOUT NAME: CE110 PLOTTED: Monday, May 16, 2016 - 3:07pm USER: herjpm\mshlighter

EROSION AND SEDIMENT CONTROL MINIMUM STANDARDS:

- 1. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE (1) YEAR.
2. SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES.
3. A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED THAT IS UNIFORM, MATURE ENOUGH TO SURVIVE AND WILL INHIBIT EROSION.
4. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND-DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE.
5. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.
6. SEDIMENT TRAPS AND SEDIMENT BASINS SHALL BE DESIGNED AND CONSTRUCTED BASED UPON TOTAL DRAINAGE AREA TO BE SERVED BY THE TRAP OR BASIN.
A. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT TRAP SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA AND THE TRAP SHALL ONLY CONTROL DRAINAGE AREAS LESS THAN THREE (3) ACRES.
B. SURFACE RUNOFF FROM DISTURBED AREAS THAT IS COMPRISED OF FLOW FROM DRAINAGE AREAS GREATER THAN OR EQUAL TO THREE (3) ACRES SHALL BE CONTROLLED BY A SEDIMENT BASIN. THE MINIMUM STORAGE CAPACITY OF A SEDIMENT BASIN SHALL BE 134 CUBIC YARDS PER ACRE OF DRAINAGE AREA. THE OUTFALL SYSTEM SHALL, AT A MINIMUM, MAINTAIN THE STRUCTURAL INTEGRITY OF THE BASIN DURING A 25-YEAR STORM OF 24-HOUR DURATION. RUNOFF COEFFICIENTS USED IN RUNOFF CALCULATIONS SHALL CORRESPOND TO A BARE EARTH CONDITION OR THOSE CONDITIONS EXPECTED TO EXIST WHILE THE SEDIMENT BASIN IS UTILIZED.
7. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. SLOPES THAT ARE FOUND TO BE ERODING EXCESSIVELY WITHIN ONE (1) YEAR OF PERMANENT STABILIZATION SHALL BE PROVIDED WITH ADDITIONAL SLOPE STABILIZING MEASURES UNTIL THE PROBLEM IS CORRECTED.
8. CONCENTRATED RUNOFF SHALL NOT FLOW DOWN CUT OR FILL SLOPES UNLESS CONTAINED WITHIN AN ADEQUATE TEMPORARY OR PERMANENT CHANNEL, FLUME, OR SLOPE DRAIN STRUCTURE.
9. WHENEVER WATER SEEPS FROM A SLOPE FACE, ADEQUATE DRAINAGE OR OTHER PROTECTION SHALL BE PROVIDED.
10. ALL STORM SEWER INLETS THAT ARE MADE OPERATIONAL DURING CONSTRUCTION SHALL BE PROTECTED SO THAT SEDIMENT-LADEN WATER CANNOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
11. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS OR PIPES ARE MADE OPERATIONAL, ADEQUATE OUTLET PROTECTION AND ANY REQUIRED TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND RECEIVING CHANNEL.
12. WHEN WORK IN A LIVE WATERCOURSE IS PERFORMED, PRECAUTIONS SHALL BE TAKEN TO MINIMIZE ENCROACHMENT, CONTROL SEDIMENT TRANSPORT AND STABILIZE THE WORK AREA TO THE GREATEST EXTENT POSSIBLE DURING CONSTRUCTION. NONERODIBLE MATERIAL SHALL BE USED FOR THE CONSTRUCTION OF CAUSEWAYS AND COFFERDAMS. EARTHEN FILL MAY BE USED FOR THESE STRUCTURES IF ARMORED BY NONERODIBLE COVER MATERIALS.
13. WHEN A LIVE WATERCOURSE MUST BE CROSSED BY CONSTRUCTION VEHICLES MORE THAN TWICE IN ANY SIX-MONTH PERIOD, A TEMPORARY VEHICULAR STREAM CROSSING CONSTRUCTED OF NONERODIBLE MATERIAL SHALL BE PROVIDED.
14. ALL APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS PERTAINING TO WORKING IN OR CROSSING LIVE WATERCOURSES SHALL BE MET.
15. THE BED AND BANKS OF A WATERCOURSE SHALL BE STABILIZED IMMEDIATELY AFTER WORK IN THE WATERCOURSE IS COMPLETED.
16. UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:
A. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
B. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES.
C. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY.
D. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE STABILIZATION.
E. RESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
F. APPLICABLE SAFETY REGULATIONS SHALL BE COMPLIED WITH.
17. WHERE CONSTRUCTION VEHICLES ACCESS ROUTES INTERSECT PAVED OR PUBLIC ROADS, PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRACKING ONTO THE PAVED SURFACE. WHERE SEDIMENT IS TRANSPORTED ONTO A PAVED OR PUBLIC ROAD SURFACE, THE ROAD SURFACE SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER. THIS PROVISION SHALL APPLY TO INDIVIDUAL DEVELOPMENT LOTS AS WELL AS TO LARGER LAND-DISTURBING ACTIVITIES.
18. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DEPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
19. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION, EROSION AND DAMAGE DUE TO INCREASES IN VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FOR THE STATED FREQUENCY STORM OF 24-HOUR IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND CRITERIA:
A. CONCENTRATED STORMWATER RUNOFF LEAVING A DEVELOPMENT SITE SHALL BE DISCHARGED DIRECTLY INTO AN ADEQUATE NATURAL OR MAN-MADE RECEIVING CHANNEL, PIPE OR STORM SEWER SYSTEM. FOR THOSE SITES WHERE RUNOFF IS DISCHARGED INTO A PIPE OR PIPE SYSTEM, DOWNSTREAM STABILITY ANALYSES AT THE OUTFALL OF THE PIPE OR PIPE SYSTEM SHALL BE PERFORMED.
B. ADEQUACY OF ALL CHANNELS AND PIPES SHALL BE VERIFIED IN THE FOLLOWING MANNER:
(1) DEMONSTRATE THAT THE TOTAL DRAINAGE AREA TO THE POINT OF ANALYSIS WITHIN THE CHANNEL IS ONE HUNDRED TIMES GREATER THAN THE CONTRIBUTING DRAINAGE AREA OF THE PROJECT; OR
(2) NATURAL CHANNELS SHALL BE ANALYZED BY THE USE OF A 2-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP CHANNEL BANKS NOR CAUSE EROSION OF CHANNEL BED OR BANKS. ALL PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL NOT OVERTOP ITS BANKS AND BY THE USE OF A 2-YEAR STORM TO DEMONSTRATE THAT STORMWATER WILL NOT CAUSE EROSION OF CHANNEL BED OR BANKS; AND PIPES AND STORM SEWER SYSTEMS SHALL BE ANALYZED BY THE USE OF A 10-YEAR STORM TO VERIFY THAT STORMWATER WILL BE CONTAINED WITHIN THE PIPE OR SYSTEM.
C. IF EXISTING NATURAL RECEIVING CHANNELS OR PREVIOUSLY CONSTRUCTED MAN-MADE CHANNELS OR PIPES ARE NOT ADEQUATE, THE APPLICANT SHALL:
(1) IMPROVE THE CHANNELS TO A CONDITION WHERE A 10-YEAR STORM WILL NOT OVERTOP THE BANKS AND A 2-YEAR STORM WILL NOT CAUSE EROSION TO THE CHANNEL BED OR BANKS; OR
(2) IMPROVE THE PIPE OR PIPE SYSTEM TO A CONDITION WHERE THE 10-YEAR STORM IS CONTAINED WITHIN THE APPURTENANCES;
(3) DEVELOP A SITE DESIGN THAT WILL NOT CAUSE THE PREDEVELOPMENT PEAK RUNOFF RATE FROM A 2-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A NATURAL CHANNEL OR WILL NOT CAUSE THE PRE-DEVELOPMENT PEAK RUNOFF RATE FROM A 10-YEAR STORM TO INCREASE WHEN RUNOFF OUTFALLS INTO A MAN-MADE CHANNEL; OR
(4) PROVIDE A COMBINATION OF CHANNEL IMPROVEMENTS, STORMWATER DETENTION OR OTHER MEASURES WHICH IS SATISFACTORY TO THE PLAN-APPROVING AUTHORITY TO PREVENT DOWNSTREAM EROSION.
D. THE APPLICANT SHALL PROVIDE EVIDENCE OF PERMISSION TO MAKE THE IMPROVEMENTS.
E. ALL HYDROLOGIC ANALYSES SHALL BE BASED ON THE EXISTING WATERSHED CHARACTERISTICS AND THE ULTIMATE DEVELOPMENT OF THE SUBJECT PROJECT.
F. IF THE APPLICANT CHOOSES AN OPTION THAT INCLUDES STORMWATER DETENTION, HE/SHE SHALL OBTAIN APPROVAL FROM THE LOCALITY OF A PLAN FOR MAINTENANCE OF THE DETENTION FACILITIES. THE PLAN SHALL SET FORTH THE MAINTENANCE REQUIREMENTS OF THE FACILITY AND THE PERSON RESPONSIBLE FOR PERFORMING THE MAINTENANCE.
G. OUTFALL FROM A DETENTION FACILITY SHALL BE DISCHARGED TO A RECEIVING CHANNEL, AND ENERGY DISSIPATORS SHALL BE PLACED AT THE OUTFALL OF ALL DETENTION FACILITIES AS NECESSARY TO PROVIDE A STABILIZED TRANSITION FROM THE FACILITY TO THE RECEIVING CHANNEL.
H. ALL ON-SITE CHANNELS MUST BE VERIFIED TO BE ADEQUATE.
I. INCREASED VOLUMES OF SHEET FLOWS THAT MAY CAUSE EROSION OR SEDIMENTATION ON ADJACENT PROPERTY SHALL BE DIVERTED TO A STABLE OUTLET, ADEQUATE CHANNEL, PIPE OR PIPE SYSTEM, OR TO A DETENTION FACILITY.
J. IN APPLYING THESE STORMWATER MANAGEMENT CRITERIA, INDIVIDUAL LOTS OR PARCELS IN A RESIDENTIAL, COMMERCIAL OR INDUSTRIAL DEVELOPMENT SHALL NOT BE CONSIDERED TO BE SEPARATE DEVELOPMENT PROJECTS. INSTEAD, THE DEVELOPMENT, AS A WHOLE, SHALL BE CONSIDERED TO BE A SINGLE DEVELOPMENT PROJECT. HYDROLOGIC PARAMETERS THAT REFLECT THE ULTIMATE DEVELOPMENT CONDITION SHALL BE USED IN ALL ENGINEERING CALCULATIONS.
K. ALL MEASURES USED TO PROTECT PROPERTIES AND WATERWAYS SHALL BE EMPLOYED IN A MANNER WHICH MINIMIZES IMPACTS ON THE PHYSICAL, CHEMICAL, AND BIOLOGICAL INTEGRITY OF RIVERS, STREAMS AND OTHER WATERS OF THE STATE.

- L. ANY PLAN APPROVED PRIOR TO JULY 1, 2014, THAT PROVIDES FOR STORMWATER MANAGEMENT THAT ADDRESSES ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS SHALL SATISFY THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS IF THE PRACTICES ARE DESIGNED TO (I) DETAIN THE WATER QUALITY VOLUME AND TO RELEASE IT OVER 48 HOURS; (II) DETAIN AND RELEASE OVER A 24-HOUR PERIOD THE EXPECTED RAINFALL RESULTING FROM THE ONE YEAR, 24-HOUR STORM; AND (III) REDUCE THE ALLOWABLE PEAK FLOW RATE RESULTING FROM THE 1.5, 2, AND 10-YEAR, 24-HOUR STORMS TO A LEVEL THAT IS LESS THAN OR EQUAL TO THE PEAK FLOW RATE FROM THE SITE ASSUMING IT WAS IN A GOOD FORESTED CONDITION, ACHIEVED THROUGH MULTIPLICATION OF THE FORESTED PEAK FLOW RATE BY A REDUCTION FACTOR THAT IS EQUAL TO THE RUNOFF VOLUME FROM THE SITE WHEN IT WAS IN A GOOD FORESTED CONDITION DIVIDED BY THE RUNOFF VOLUME FROM THE SITE IN ITS PROPOSED CONDITION, AND SHALL BE EXEMPT FROM ANY FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS FOR NATURAL OR MAN-MADE CHANNELS AS DEFINED IN ANY REGULATIONS PROMULGATED PURSUANT TO § 62.1-44.15.54 OR 62.1-44.15.65 OF THE ACT.
M. FOR PLANS APPROVED ON AND AFTER JULY 1, 2014, THE FLOW RATE CAPACITY AND VELOCITY REQUIREMENTS OF § 62.1-44.15.52 OF THE ACT AND THIS SUBSECTION SHALL BE SATISFIED BY COMPLIANCE WITH WATER QUANTITY REQUIREMENTS IN THE STORMWATER MANAGEMENT ACT (§ 62.1-44.15.24 ET SEQ. OF THE CODE OF VIRGINIA) AND ATTENDANT REGULATIONS, UNLESS SUCH LAND-DISTURBING ACTIVITIES ARE IN ACCORDANCE WITH 9VAC25-870-48 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS.
N. COMPLIANCE WITH THE WATER QUANTITY MINIMUM STANDARDS SET OUT IN 9VAC25-870-66 OF THE VIRGINIA STORMWATER MANAGEMENT PROGRAM (VSMP) REGULATIONS SHALL BE DEEMED TO SATISFY THE REQUIREMENTS OF SUBDIVISION 19 OF THIS SUBSECTION.

EROSION & SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION:

THIS PROJECT CONSISTS OF CONSTRUCTING A 2,000 S.F. FAMILY HOUSING WELCOME CENTER ALONG WITH ALL ASSOCIATED PARKING LOT IMPROVEMENTS, STORM SEWER, WATER AND SANITARY SEWER IMPROVEMENTS. LAND DISTURBANCE DUE TO THIS CONSTRUCTION IS 0.48 ACRES. THE EXISTING SITE INCLUDES 0.02 ACRES OF IMPERVIOUS AREA (4%). THE PROPOSED SITE INCLUDES 0.14 ACRES OF IMPERVIOUS AREA (29%). SEDIMENT CONTROL FOR THE PROPOSED CONSTRUCTION ACTIVITIES WILL BE IN ACCORDANCE WITH THE POLICIES AND REQUIREMENTS OF THE VIRGINIA EROSION & SEDIMENT CONTROL HANDBOOK. THIS PLAN PROPOSES EROSION AND SEDIMENT CONTROL IN TWO SEPARATE PHASES. THE FIRST PHASE WILL ESTABLISH THE CONTROLS RELATED TO INITIAL CLEARING AND ROUGH GRADING OPERATIONS. THE SECOND PHASE IS TAILORED TO CONTROL SEDIMENT DURING THE FINAL DEVELOPMENT STAGE.

EXISTING SITE CONDITIONS:

THE EXISTING SITE IS GENERALLY UNDEVELOPED AND IS COVERED WITH GRASS. THE EXISTING SLOPE RANGES FROM 1% TO 3%. THE ENTIRE SITE DRAINS FROM NORTH TO SOUTH AND SHEET FLOWS INTO THE EXISTING CURB AND GUTTER DRAINAGE SYSTEM ON SKEETER LANE.

ADJACENT PROPERTY:

THE SITE IS BOUNDED TO THE NORTH BY WOODS, TO THE EAST BY AN EXISTING 2-UNIT HOME, TO THE SOUTH BY SKEETER LANE, AND TO THE WEST BY AN OPEN FIELD. THE POTENTIAL FOR OFFSITE DAMAGES IS NEGLIGIBLE. THERE ARE NO KNOWN OFF SITE ENVIRONMENTALLY SENSITIVE AREAS. SILT FENCE WILL BE USED TO PROTECT THE ADJACENT AREAS FROM SEDIMENT-LADEN RUNOFF.

OFF-SITE AREAS:

NO OFFSITE BORROW OR DISPOSAL SITES AREA EXPECTED. ANY ADDITIONAL OFFSITE LAND-DISTURBING ACTIVITY ASSOCIATED WITH THIS PROJECT MUST HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN.

SOILS DATA:

THE SUBSURFACE SOILS AT THE SITE CONSIST OF 3 INCHES OF TOPSOIL OVERLYING A LAYER OF COASTAL PLAIN SEDIMENTS. BROWN AND DARK BROWN, MOIST, VERY LOOSE TO LOOSE, SILTY, FINE SAND (SM, SM-SC) EXTENDS TO AN AVERAGE DEPTH OF 0.5 FT. TO 1.5 FT. FOR MORE DETAILED INFORMATION REGARDING THE SITE SOILS PLEASE REFER TO THE GEOTECHNICAL REPORT PREPARED BY NAVFAC DATED MAY 11, 2015.

CRITICAL AREAS:

SPECIAL CARE SHALL BE TAKEN TO PROTECT THE EXISTING TREES AND VEGETATION ON THE SITE.

SEDIMENT CONTROL PROGRAM:

SEDIMENT CONTROL SHALL BE ACCOMPLISHED THROUGH RAPID STABILIZATION AND BY THE INSTALLATION OF MECHANICAL DEVICES, AS SHOWN ON THE E&S PLAN.

STRUCTURAL PRACTICES:

- 1. TEMPORARY CONSTRUCTION ENTRANCE WITH WASH RACK (CE) AND SETTLING AREA. THE CONTRACTOR TO SUPPLY WATER SOURCE BY CONNECTING TO EXISTING WATERLINE OR BY PROVIDING A WATER TRUCK/WATER TANK ON-SITE FOR WASHING VEHICLES BEFORE ENTERING THE PUBLIC ROAD.
2. TREE PROTECTION (TP)
3. SILT FENCE (SF)
4. INLET PROTECTION (IP) & CULVERT INLET PROTECTION (CIP)

VEGETATIVE PRACTICES:

- 1. TOP SOILING (STOCKPILES) -TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. REFER TO PLAN SHEET CE110 FOR INFORMATION REGARDING THE STOCKPILE LOCATION. STOCKPILES SHALL BE STABILIZED WITH TEMPORARY VEGETATION. SILT FENCES SHALL BE INCLUDED AROUND ALL STOCKPILE AREAS.
2. TEMPORARY SEEDING -ALL DENUDED AREAS THAT WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME PER MINIMUM STANDARD NO. 1 SHALL BE SEEDDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF THE YEAR IT IS APPLIED.
3. EROSION CONTROL BLANKETS OR MULCH -EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND SEEDDED TO PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND ALLOW THE SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS AND WILL BE APPLIED AS A SECOND STEP IN THE SEEDING OPERATION.
4. ALL SILTATION CONTROL MEASURES ARE INTENDED TO PREVENT SEDIMENT FROM ENCROACHING INTO ENVIRONMENTALLY SENSITIVE AREAS OR ONTO ADJACENT PROPERTIES AND ROADWAYS. THE DEPARTMENT HAS THE AUTHORITY TO ADD OR DELETE EROSION AND SEDIMENT CONTROLS IN THE FIELD AS SITE CONDITIONS WARRANT. IN ADDITION, NO SEDIMENT TRAPS OR SEDIMENT BASINS MAY BE REMOVED WITHOUT THE PRIOR APPROVAL OF THE INSPECTOR. SEDIMENT CONTROL "MAINTENANCE PROGRAM" DESCRIBED BELOW.
5. OBTAIN INSPECTOR'S APPROVAL PRIOR TO THE REMOVAL OF THE REMAINING MECHANICAL SEDIMENT CONTROLS.

PERMANENT STABILIZATION:

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STD. & SPEC. 3.32. PERMANENT SEEDING, OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDDED. THIS WILL PROTECT THE SLOPES FROM RILL AND GULLY EROSION AND ALLOW THE SEED TO GERMINATE PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED, FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING.

STORMWATER MANAGEMENT:

STORMWATER MANAGEMENT IS TO BE HANDLED BY STORM SEWERS THAT WILL COLLECT AND DRAIN THE STORM WATER TO THE EXISTING STORM SYSTEM ON SKEETER LANE.

MAINTENANCE PROGRAM:

IN GENERAL ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL EVENT. THE FOLLOWING MEASURES WILL BE CHECKED IN PARTICULAR:

CONSTRUCTION ENTRANCES: INSPECTIONS SHALL BE MADE DAILY FOR ENTRANCE INTEGRITY; REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.

SILT FENCE: INSPECTIONS SHALL BE MADE DAILY FOR FENCE INTEGRITY; REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT IS TO BE REMOVED WHEN DEPOSITS REACH ONE-HALF THE FENCE HEIGHT.
CULVERT INLET PROTECTION: INLETS SHALL BE CHECKED FOR SEDIMENT ACCUMULATION AS NEEDED.
TREE PROTECTION: INSPECTIONS SHALL BE MADE DAILY FOR FENCE INTEGRITY; REQUIRED REPAIR SHALL BE MADE IMMEDIATELY.
PERMANENT SEEDING: SEEDDED AREAS SHALL BE CHECKED REGULARLY TO ASSURE A GOOD STAND OF GRASS IS BEING MAINTAINED. AREAS THAT FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION SHALL BE RE-SEEDDED AS SOON AS THEY ARE IDENTIFIED.
MULCHING: ALL MULCHED AREAS SHALL BE INSPECTED PERIODICALLY, PARTICULARLY AFTER RAINSTORMS, TO CHECK FOR RILL EROSION; REPAIR AS NEEDED.

PHASING OF LAND DISTURBING ACTIVITIES:

SEDIMENT CONTROL IS PROVIDED THROUGH A TWO-PHASED APPROACH.

PHASE I:

PHASE I OPERATIONS WILL INCLUDE THE CONSTRUCTION NEEDED TO DIVERT MAJOR OFF-SITE CLEAN WATER AND ON-SITE DRAINAGE FLOWS AROUND THE WORK AREA AND CONTROL EROSION AND SILTATION ASSOCIATED WITH INITIAL CLEARING AND GRADING OPERATIONS. AS REQUIRED, PHASE I CONTROLS SHALL BE ESTABLISHED IN A ONE (1) STEP PROCESS:

- 1. CONTRACTOR TO OBTAIN VPDES PERMIT. CONTRACTOR, RESPONSIBLE LAND DISTURBER AND CONSTRUCTION MANAGER SHALL ATTEND A PRE-CONSTRUCTION MEETING WITH THE INSPECTOR PRIOR TO STARTING ANY LAND DISTURBING ACTIVITIES. CONTRACTOR SHALL ALSO CONTACT DANIEL STURGIS WITH THE NAVSEA FACILITIES MANAGEMENT DIVISION TO FILE A WORK REQUEST FOR MARKING THE NON-FRANCHISE UTILITIES MANAGED BY THE INSTALLATION. MR. STURGIS MAY BE CONTACTED AT 757-824-7700.
2. INSTALL CONSTRUCTION ENTRANCE (CE) AS SHOWN ON THE PLAN. PROVIDE THE CONSTRUCTION ENTRANCE WITH WASH RACK AND ESTABLISH A PROTECTED STAGING AND EQUIPMENT PARKING AREA.
3. INSTALL THE REMAINING MECHANICAL CONTROLS SUCH AS SILT FENCE (SF), INLET PROTECTION (IP), AND TREE PROTECTION (TP) AS SHOWN ON THE PLAN.
4. CONTACT THE INSPECTOR FOR AN E&S PERIMETER INSPECTION PRIOR TO STARTING THE CLEARING AND GRUBBING OF REMAINING SITE.
5. CLEARING AND GRUBBING OR REMOVAL OF EXISTING VEGETATION MUST BE LIMITED WITHIN THE LIMITS OF CLEARING, AS SHOWN ON THE PLAN.

PHASE II:

THE PHASE II SEDIMENT CONTROL MEASURES ARE INTENDED FOR THE FINAL STAGES OF SITE DEVELOPMENT. PHASE I CONTROL MEASURES THAT ARE FOUND TO BE IN CONFLICT SHALL BE REPLACED WITH APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES ONSITE. THE CONTRACTOR AND THE RESPONSIBLE LAND DISTURBER SHALL FOLLOW THE INSPECTOR'S DIRECTION IN PROVIDING ADDITIONAL CONTROL MEASURES NEEDED DURING THE DEVELOPMENT PROCESS, TO INSURE THAT SEDIMENT IS PREVENTED FROM POLLUTING OFF-SITE AREAS, STREAMS AND/OR PROTECTED ON-SITE AREAS.

THE FOLLOWING SEQUENCE OF CONSTRUCTION IS SUGGESTED:

- 1. ROUGH GRADE THE PARKING LOT.
2. INSTALL UTILITIES.
3. INSTALL THE STORM SEWER SYSTEM.
4. CONSTRUCT THE BASE PAVEMENT FOR THE PARKING LOT AND PERMANENTLY STABILIZE SITE BY SURFACE ROUGHENING FOLLOWED BY PLANTING AND SEEDING.
5. INSTALL FINAL PAVEMENT.

DEVICES SHOWN ARE TO BE CONSIDERED AS MINIMUM EROSION AND SEDIMENTATION CONTROLS. ADDITIONAL CONTROLS MAY BE NECESSARY DUE TO CONTRACTOR'S PHASING OR OTHER UNANTICIPATED CONDITIONS. THE EROSION AND SEDIMENT CONTROL DEPARTMENT HAS THE RIGHT TO ADD OR REMOVE CONTROLS AS DEEMED NECESSARY IN THE FIELD. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADDITIONAL DEVICES AS NECESSARY IN ORDER TO CONTROL EROSION AND SEDIMENTATION AT NO ADDITIONAL COST TO THE GOVERNMENT. EROSION AND SEDIMENTATION MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION. CONTROLS MAY BE REMOVED AFTER THE AREAS ABOVE THEM HAVE BEEN STABILIZED AND WITH THE APPROVAL OF THE INSPECTOR.

SPECIAL CARE NOTES:

IT IS THE INTENT OF THIS PLAN TO PRECLUDE SEDIMENT POLLUTION FROM LEAVING THE DELINEATED CONSTRUCTION ZONES.

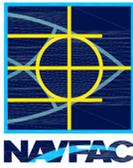
THE CONTRACTOR AND THE RESPONSIBLE LAND DISTURBER SHALL TAKE SPECIAL CARE TO PREVENT CONSTRUCTION DEBRIS AND MUD FROM BEING TRACKED ONTO SURROUNDING ROADS. CONSTRUCTION TRAFFIC SHALL ONLY ENTER AND EXIT THE CONSTRUCTION SITE VIA DESIGNATED LOCATIONS, WHICH HAVE WORKING CONSTRUCTION TRAFFIC WASH RACKS.

THE CONTRACTOR AND RESPONSIBLE LAND DISTURBER SHALL TAKE SPECIAL CARE TO PROTECT THE EXISTING VEGETATION OUTSIDE OF THE DESIGNATED LIMITS OF WORK SHOWN ON THE PLANS.

NASA CONSTRUCTION NOTES

- 1. IF THE CONTRACTOR NEEDS TO ENTER NASA PROPERTY TO CLEAN OUT STORM PIPES OR TO OPERATE VALVES, THE CONTRACTOR MUST HAVE NASA BADGING.
2. NOTE THAT NASA OWNS THE WATER, SANITARY SEWER, AND STORM SEWER SYSTEMS WITHIN THE PROJECT LIMITS.
3. A COPY OF THE BACTERIOLOGICAL TESTS, BACK FLOW TESTS, AND ALL OTHER RELATED TESTS MUST BE PROVIDED TO MICHAEL MORGAN (757-824-2764), NASA FACILITY CIVIL ENGINEER.
4. A COPY OF THE AS-BUILT DRAWINGS AND AS-BUILT CAD FILE SHALL BE PROVIDED TO MICHAEL MORGAN (757-824-2764), NASA FACILITY CIVIL ENGINEER.
5. THE CONTRACTOR SHALL NOTE THAT NASA IS THE LAND OWNER AND THE NAVY IS THE LESSEE WITH THE CONTRACTOR BEING RESPONSIBLE FOR THE LAND DISTURBANCE AND FOR COMPLIANCE WITH STATE REGULATIONS FOR EROSION AND SEDIMENT CONTROL.
6. THE CONTRACTOR SHALL COORDINATE WITH MICHAEL MORGAN (757-824-2764), NASA FACILITY CIVIL ENGINEER, ON ANY UTILITY OUTAGES.
7. MICHAEL MORGAN (757-824-2764), NASA FACILITY CIVIL ENGINEER, SHALL BE CONTACTED IF THERE ARE ANY DISCHARGES OF SEDIMENT INTO THE STORM SYSTEM OR ONTO NASA PROPERTY.

APPROVED: [Signature] DATE: 05/11/16
GENERAL REVISIONS: [Table]
SCALE: AS SHOWN
PROJECT NO.: 1366574
CONSTR. CONTR. NO.: 12708184
NAVFAC DRAWING NO.: 12708184
SHEET 12 OF 70
CE501
DRAWING REVISION: 10 MARCH 2009



A/E INFO

FOR COMMANDER NAVFAC

ACTIVITY

HERM RAWLINGS

SATISFACTORY TO: DATE: MM/DD/YY

DES: BSS | DRW: BSS | CHK: []

PM/TM: JTL/APK

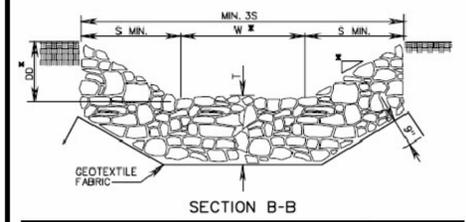
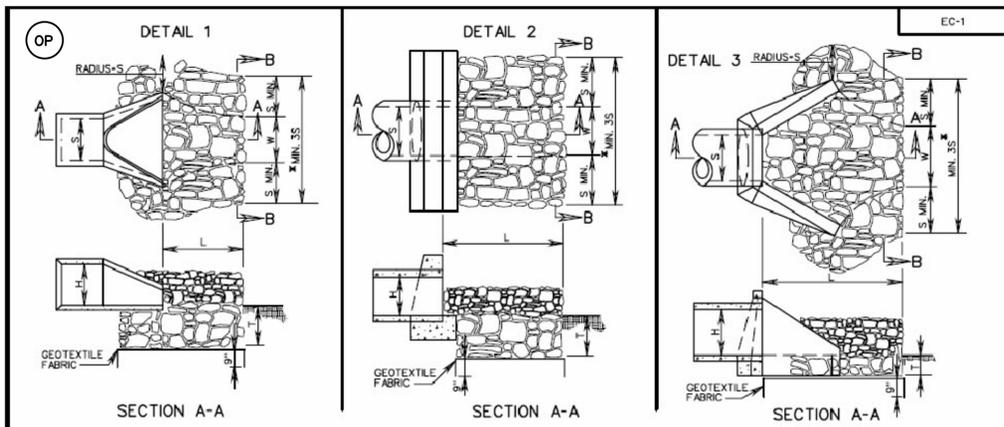
BRANCH MANAGER

CHIEF ENG/ARCH: RLW

FIRE PROTECTION: DPS

NAVY FACILITIES ENGINEERING COMMAND

FILE NAME: P:\NAV Wallops Island\MILCON\2016_1366574_P236_DBB_DWG\Drawings\Sheet Files\05_Civil\0236-1366574-CE501.dwg LAYOUT NAME: CE501 PLOTTED: Monday, May 16, 2016 - 7:55am USER: herjpmjmslighter



NOTES:

- FOR MULTIPLE LINE INSTALLATIONS, DIMENSION S IS TO GOVERN THE PROTECTION OUTSIDE THE CHANNEL WIDTH (W).
- ON ANY INSTALLATION REQUIRING CULVERT OUTLET PROTECTION WHERE NO ENDWALL OR ENDSECTION IS SPECIFIED ON THE PLANS, CONSTRUCTION IS TO BE IN ACCORDANCE WITH DETAIL 2 SHOWN ABOVE.
- GEOTEXTILE FABRIC TO BE INSTALLED UNDER CLASS A I, AND I MATERIALS IN ACCORDANCE WITH THE SPECIFICATIONS.
- S - DIAMETER OF CIRCULAR CULVERT OR SPAN FOR BOX, ELLIPTICAL OR ARCH CULVERT. H - DIAMETER OF CIRCULAR CULVERT OR RISE/HEIGHT FOR BOX, ELLIPTICAL OR ARCH CULVERT.

* USE TYPICAL SECTION SHOWN ON PLANS FOR SIDE SLOPE, BOTTOM WIDTH AND DEPTH OF CHANNEL OR MATCH EXISTING DITCH OR NATURAL GROUND.

TYPE OF OUTLET PROTECTION MATERIAL	MAXIMUM OUTLET VELOCITY (FOR DESIGN STORM)	MINIMUM "T" (INCHES)
CLASS A I CLASS A I DRY RIPRAP	8 fps	18
CLASS I CLASS I DRY RIPRAP	14 fps	24
CLASS II CLASS II DRY RIPRAP	19 fps	36

OUTLET PROTECTION MINIMUM LENGTH (L)	
TYPE A INSTALLATION	3H
TYPE B INSTALLATION	5H

CULVERT OUTLET PROTECTION

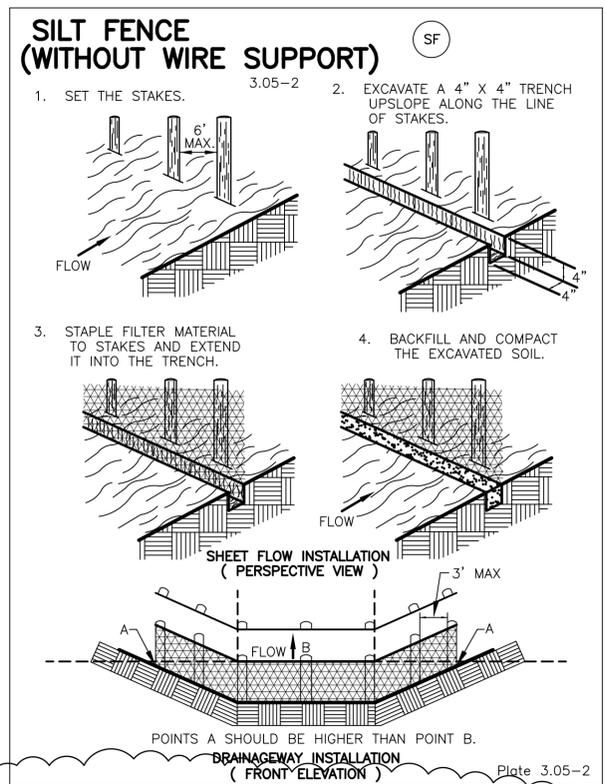
VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT ROAD AND BRIDGE STANDARDS

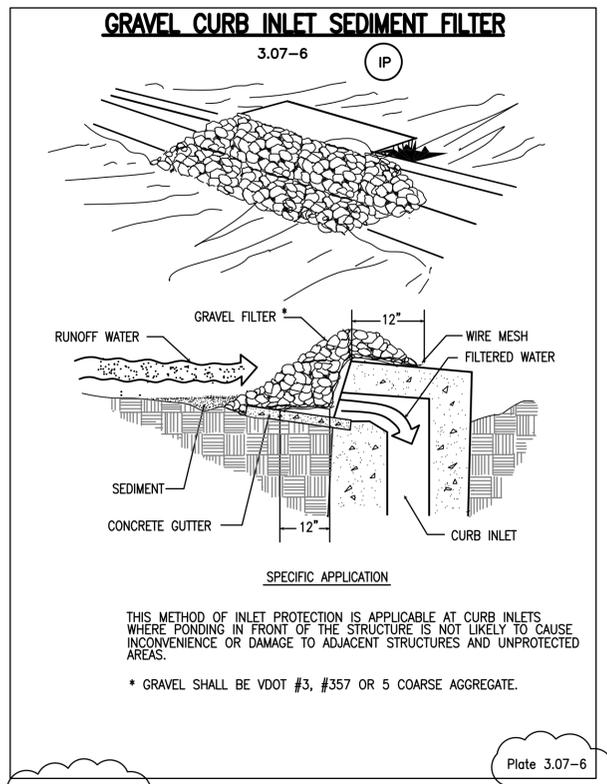
REVISION DATE: SHEET 1 OF 1

113.01

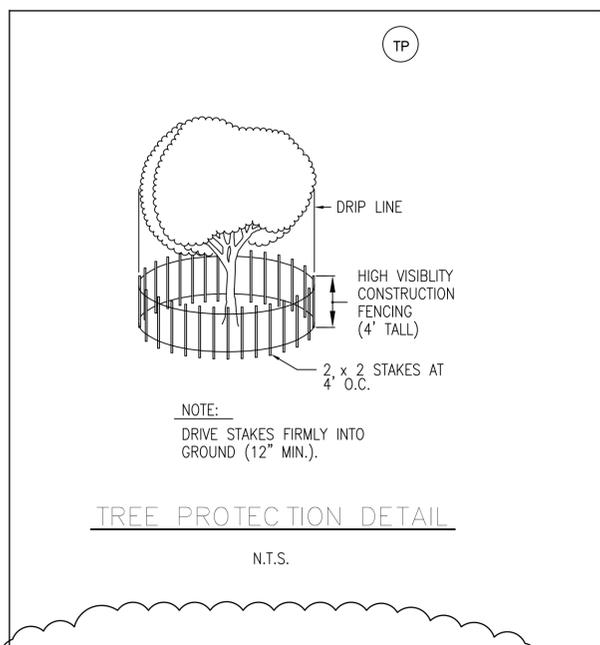
SOURCE: VDOT 2008 ROAD AND BRIDGE STANDARDS



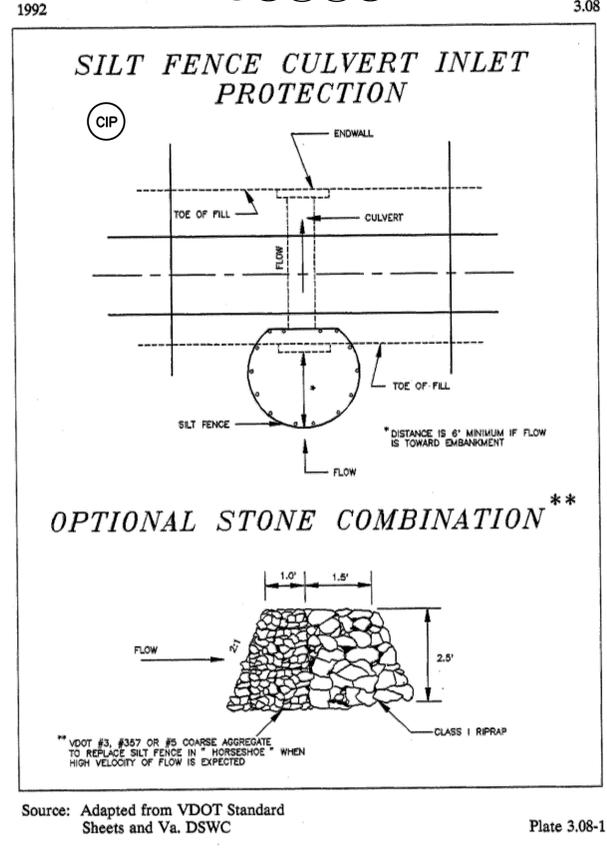
SOURCE: ADAPTED FROM INSTALLATION OF STRAW AND FABRIC FILTER BARRIERS FOR SEDIMENT CONTROL, SHERWOOD AND WYANT



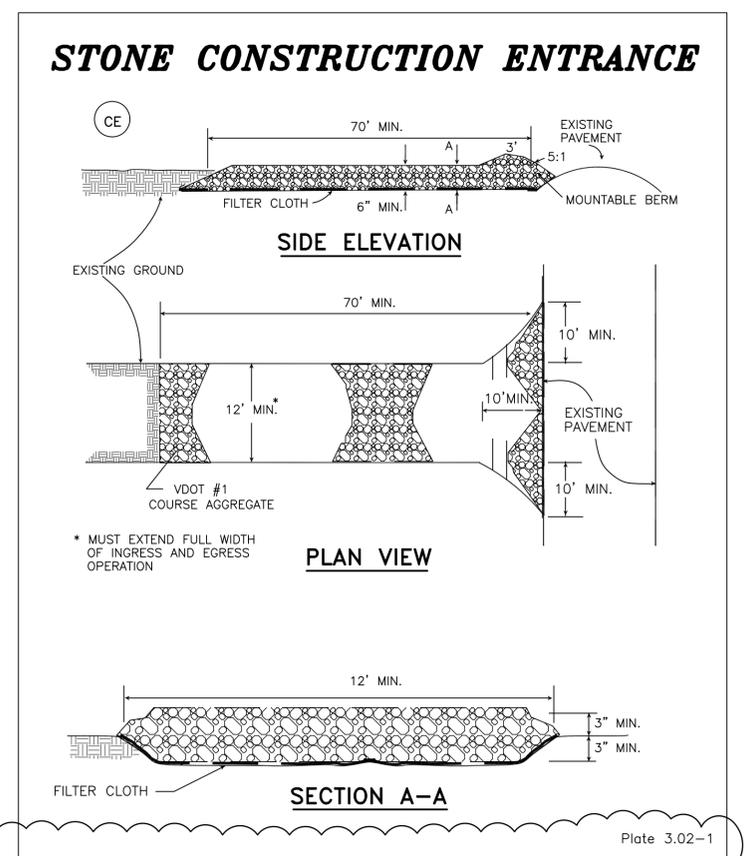
SOURCE: VA. DSWC



SOURCE: NAVFAC, CONTACT CONTRACTING OFFICER FOR ANY QUESTIONS.



SOURCE: Adapted from VDOT Standard Sheets and Va. DSWC



SOURCE: ADAPTED FROM 1983 MARYLAND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, AND VA. DSWC

APPROVED: _____ DATE: 05/11/16

GENERAL REVISIONS: _____

SYNOPSIS DESCRIPTION: _____

SCALE: AS SHOWN

PROJECT NO.: 1366574

CONSTR. CONTR. NO.: _____

NAVAC DRAWING NO.: 12708185

SHEET 13 OF 70

CE502

DRAWN/REVISION: 10 MARCH 2009

FOR COMMANDER NAVFAC: _____

ACTIVITY: _____

HERM RAWLINGS

SATISFACTORY TO: DATE: MM/DD/YY

DES: BSS | DRW: BSS | CHK: _____

PM/DM: JTL/APK

BRANCH MANAGER: _____

CHIEF ENG/ARCH: RLW

FIRE PROTECTION: _____

DPS

NAVAC FACILITIES ENGINEERING COMMAND

NAVAC FACILITIES ENGINEERING COMMAND

HAMPTON ROADS IPT

NORFOLK, VA

WALLOPS ISLAND, VA

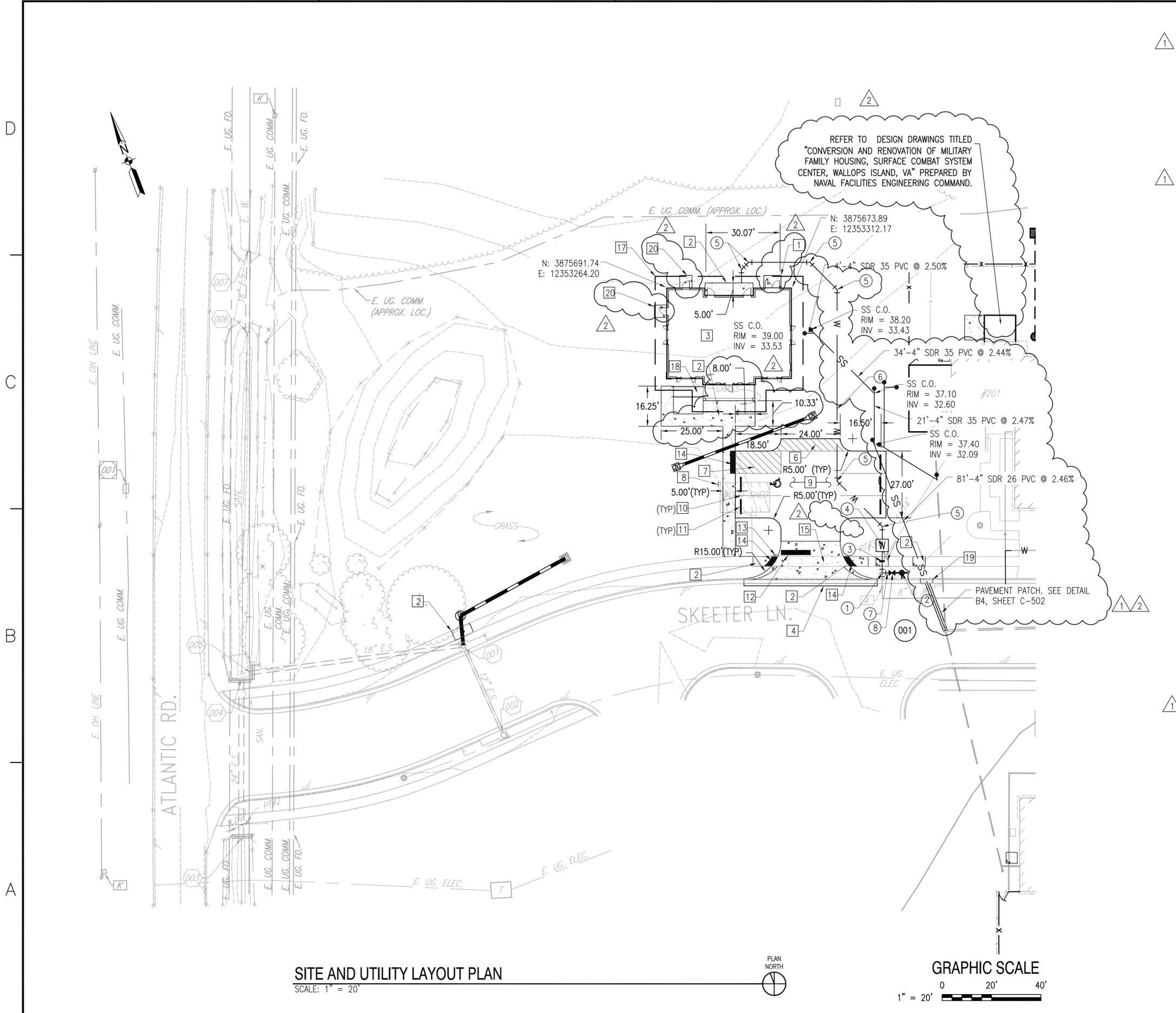
SURFACE COMBAT SYSTEM CENTER

HOUSING WELCOME CENTER

EROSION & SEDIMENT CONTROL DETAILS

FILE NAME: P:\VA\Wallops Island\MILCON\2016_1366574_P23E_DBB_HousingWelcomeCenter\B_Design\Drawings\Sheet Files\05_Civil\F23E-1366574-CE502.dwg LAYOUT NAME: CE502 PLOTTED: Monday, May 16, 2016 - 7:56am USER: benjamin.slaughter

FILE NAME: P:\VA\Wallops Islands\MILCON\2016_1366574_P238_DBB_HousingWelcomeCenter\B_Design\Drawings\Sheet Files\05_Civil\F238-1366574-CS101.dwg LAYOUT NAME: CS101 PLOTTED: Monday, May 16, 2016 - 7:57am USER: benjamin.slaughter



SITE AND UTILITY LAYOUT PLAN
SCALE: 1" = 20'



SHEET NOTES

1. SEE SHEET C-001 FOR GENERAL NOTES, SURVEY NOTES, DEMOLITION NOTES AND LEGEND.
2. SEE ELECTRICAL DRAWING SHEETS FOR ELECTRICAL AND TELECOMMUNICATION LAYOUT.

SITE LAYOUT KEYNOTES

- 1 7'X5' CONCRETE PAD, MATCH CONCRETE SIDEWALK SECTION, SEE DETAIL B1, SHEET C-502.
- 2 CONCRETE SIDEWALK, SEE DETAIL B1, SHEET C-502.
- 3 HOUSING WELCOME CENTER - SEE ARCHITECTURAL PLANS.
- 4 SAW CUT AND REPLACE 1' STRIP OF ASPHALT TO CREATE A SMOOTH TRANSITION, MATCH EXISTING GRADE.
- 5 NOT USED.
- 6 PAINTED ISLAND - YELLOW, SEE DETAIL C2, SHEET C-503.
- 7 PAINTED ISLAND - BLUE, SEE DETAIL C2, SHEET C-503.
- 8 HANDICAP PARKING SIGN - SEE DETAIL C3, SHEET C-503.
- 9 BITUMINOUS PAVEMENT SECTION - SEE DETAIL B3, SHEET C-502.
- 10 4" SOLID WHITE STRIPE - SEE DETAIL C2, SHEET C-503.
- 11 PRECAST CONCRETE WHEEL STOP - SEE DETAIL C5, SHEET C-503.
- 12 24" STOP BAR - SEE DETAIL C2, SHEET C-503.
- 13 "STOP" SIGN - SEE DETAIL C4, SHEET C-503.
- 14 DETECTABLE WARNING - SEE VDOT ST'D CG-12 DETAIL, SHEET C-502.
- 15 VDOT ST'D CG-9D ENTRANCE - SEE VDOT ST'D CG-9D DETAIL, SHEET C-502.
- 16 NOT USED
- 17 ROOF OVERHANG - SEE ARCHITECTURAL PLANS.
- 18 HANDICAP RAMP - SEE ARCHITECTURAL PLANS.
- 19 VDOT ST'D CG-6 CURB AND GUTTER - SEE VDOT ST'D CG-6 DETAIL, SHEET C-504.
- 20 5'X5' CONCRETE PAD, MATCH CONCRETE SIDEWALK SECTION, SEE DETAIL B1, SHEET C-502.

UTILITY LAYOUT KEYNOTES

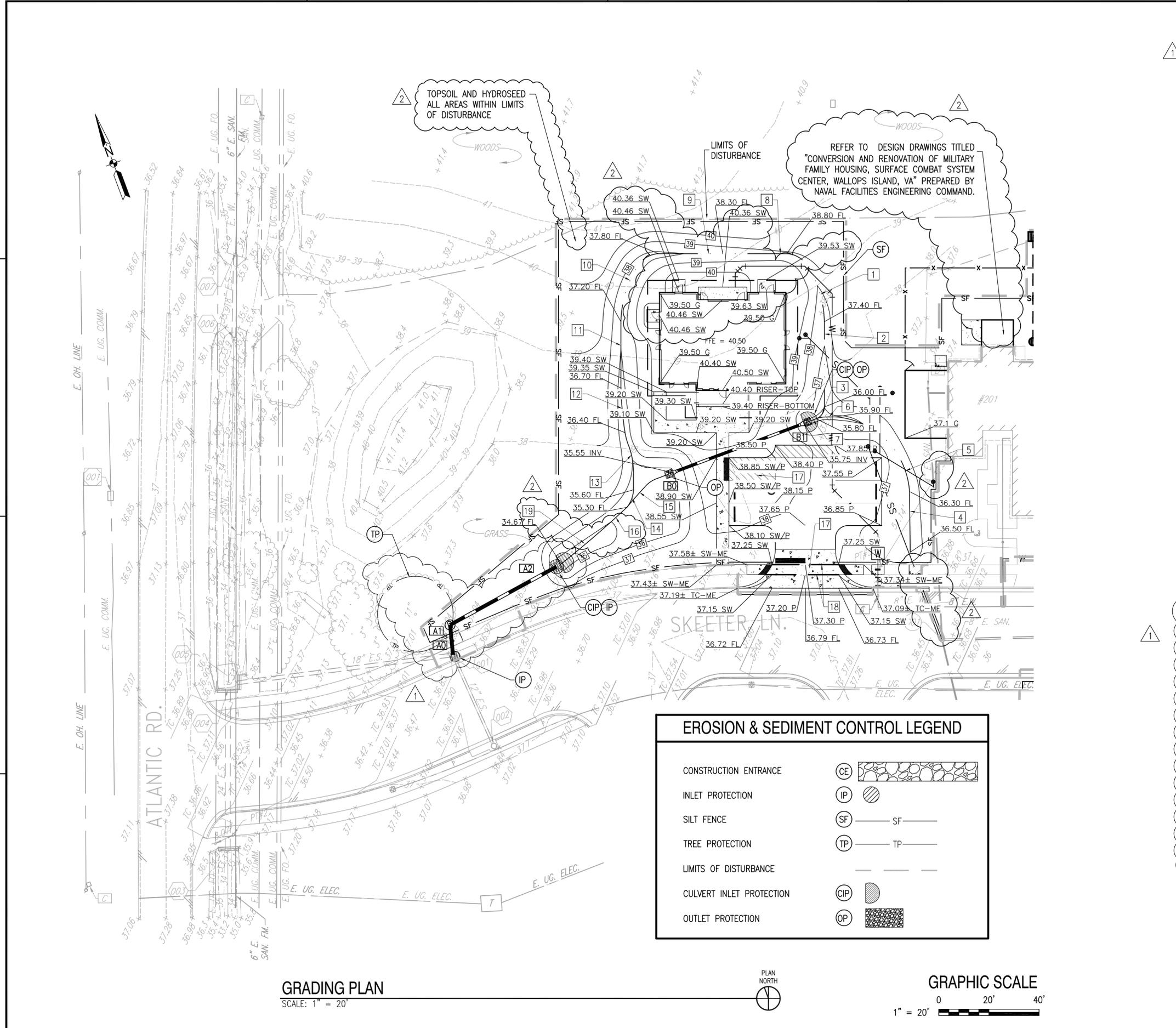
- 1 CONNECT TO EXISTING WATERLINE WITH 6"X6" TEE
- 2 RELOCATE EXISTING FIRE HYDRANT - SEE DETAIL A3, SHEET C-501.
- 3 REDUCE WATERLINE FROM A 6" LINE TO A 1" LINE BEFORE ENTERING THE METER.
- 4 1" WATER METER IN CAST IRON WATER METER BOX AND COVER - METER PROVIDED BY CONTRACTOR. METER SHALL CONFORM TO AWWA C700. REGISTER SHALL BE STRAIGHT-READING AND SHALL READ IN U.S. GALLON. METER SHALL FEATURE FROST-PROTECTION DESIGN. CONNECTIONS SHALL BE SUITABLE TO THE TYPE OF PIPE AND CONDITIONS ENCOUNTERED. REGISTER TYPE SHALL BE DIRECT READ TYPE. REMOTE READING CAPABILITIES ARE NOT REQUIRED. METER SHALL COMPLY WITH THE ACCURACY AND CAPACITY REQUIREMENTS OF AWWA C700. CAST IRON WATER METER BOX AND COVER - SEE DETAIL A6, SHEET C-501.
- 5 45° BEND
- 6 1" WATER SERVICE LINE
- 7 6" WATER LINE
- 8 6" GATE VALVE - SEE DETAIL A1, SHEET C-501.

NEW SANITARY STRUCTURE DATA

- 001 EXIST. SANITARY MANHOLE
RIM = 36.32
INV. IN (NE) = 29.48
INV. IN (SW) = 29.44
INV. IN (NW) = 30.10 (NEW CONNECTION)
INV. OUT (SE) = 29.15

DATE	05/11/16	DATE	01/21/16
SYMBOL	GENERAL REVISIONS	SYMBOL	GENERAL REVISIONS 01
DESCRIPTION		DESCRIPTION	
HERM RAWLINGS SATISFACTORY TO: DATE MM/DD/YY DES: BSS DRW: BSS CHK: PM/DM: JTL/APK BRANCH MANAGER CHIEF ENG/ARCH: RLW FIRE PROTECTION: DPS			
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND HAMPTON ROADS DISTRICT NORFOLK, VA		WALLOPS ISLAND, VA HOUSING WELCOME CENTER SURFACE COMBAT SYSTEM CENTER SITE AND UTILITY LAYOUT PLAN	
SCALE: AS SHOWN EPROJCT NO.: 1366574 CONSTR. CONTR. NO.: NAVFAC DRAWING NO.: 12708186 SHEET 14 OF 70 CS101 <small>DRAWING REVISION: 10 MARCH 2009</small>			

FILE NAME: P:\VA\Wallops Island\MLCON\2016_1366574_P23E_DBB_HousingWelcomeCenter\B_Design\Drawings\Sheet Files\05_Civil\23E-1366574-CG101.dwg LAYOUT NAME: CG101 PLOTTED: Monday, May 16, 2016 - 7:59am USER: benjamin.slaughter



2 TOPSOIL AND HYDROSEED ALL AREAS WITHIN LIMITS OF DISTURBANCE

REFER TO DESIGN DRAWINGS TITLED "CONVERSION AND RENOVATION OF MILITARY FAMILY HOUSING, SURFACE COMBAT SYSTEM CENTER, WALLOPS ISLAND, VA" PREPARED BY NAVAL FACILITIES ENGINEERING COMMAND.

EROSION & SEDIMENT CONTROL LEGEND	
CONSTRUCTION ENTRANCE	CE
INLET PROTECTION	IP
SILT FENCE	SF
TREE PROTECTION	TP
LIMITS OF DISTURBANCE	
CULVERT INLET PROTECTION	CIP
OUTLET PROTECTION	OP

SHEET NOTES

1. REFER TO SHEET C-001 FOR GENERAL NOTES, SURVEY NOTES, AND LEGEND.
2. REFER TO SHEET CE101 FOR SURVEY UTILITY SCHEDULE, STORM SCHEDULE, UTILITY NOTES, AND SITE NOTES.

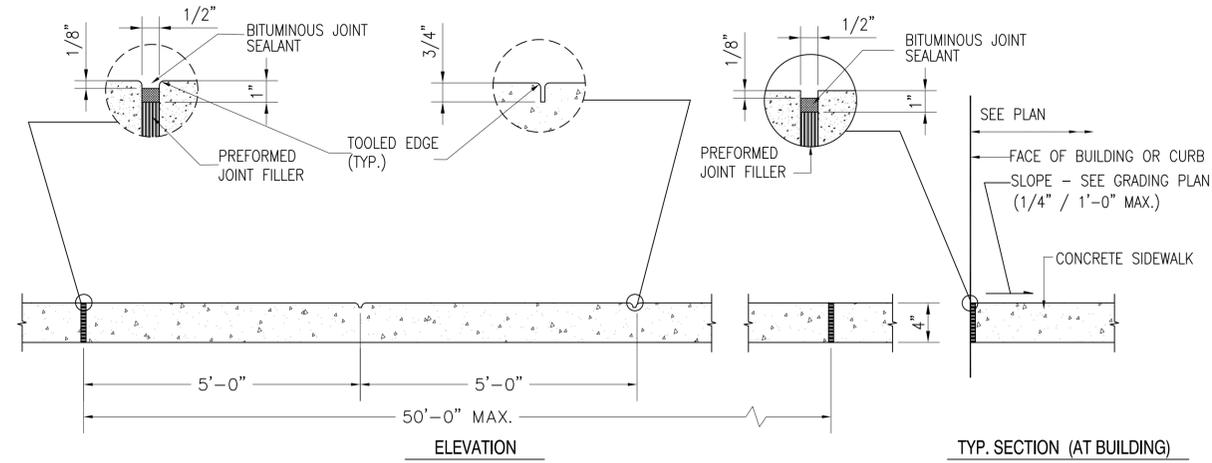
LAYOUT KEYNOTES

- 1 33' V-DITCH W/ VARIABLE SIDE SLOPES @ 4.18%
- 2 34' V-DITCH W/ VARIABLE SIDE SLOPES @ 4.12%
- 3 3' V-DITCH W/ VARIABLE SIDE SLOPES @ 3.30%
- 4 24' V-DITCH W/ VARIABLE SIDE SLOPES @ 0.83%
- 5 46' V-DITCH W/ VARIABLE SIDE SLOPES @ 0.87%
- 6 8' V-DITCH W/ VARIABLE SIDE SLOPES @ 1.25%
- 7 5' V-DITCH W/ VARIABLE SIDE SLOPES @ 0.96%
- 8 26' V-DITCH W/ VARIABLE SIDE SLOPES @ 1.95%
- 9 26' V-DITCH W/ VARIABLE SIDE SLOPES @ 1.95%
- 10 33' V-DITCH W/ VARIABLE SIDE SLOPES @ 1.79%
- 11 26' V-DITCH W/ VARIABLE SIDE SLOPES @ 1.89%
- 12 18' V-DITCH W/ VARIABLE SIDE SLOPES @ 1.69%
- 13 23' V-DITCH W/ VARIABLE SIDE SLOPES @ 3.45%
- 14 8' V-DITCH W/ VARIABLE SIDE SLOPES @ 3.94%
- 15 23' V-DITCH W/ VARIABLE SIDE SLOPES @ 1.07%
- 16 8' V-DITCH W/ VARIABLE SIDE SLOPES @ 3.55%
- 17 ABA-COMPLIANT AREA, MAX. SLOPE IN AREA SHALL BE 2.00%
- 18 GRADE BREAK
- 19 27' V-DITCH W/ VARIABLE SIDE SLOPES @ 1.22%

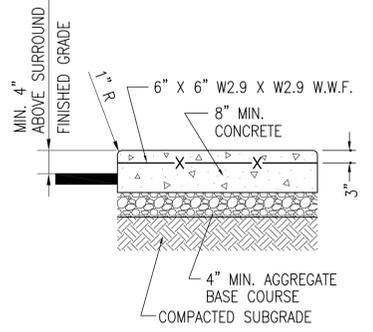
NEW STORM DRAINAGE STRUCTURE DATA

- A0** EXIST. CURB INLET
RIM = 36.86
INV. IN = 33.83 (EXISTING 12")
INV. IN = 33.85 (PROPOSED 12")
INV. OUT = 33.81 (EXISTING 18")
A1 TO **A0**
12 LF 15" RCP @ 0.33%
- A1** PRECAST MANHOLE
RIM = 37.04
INV. IN = 33.89
INV. OUT = 33.89
A2 TO **A1**
48 LF 15" RCP @ 0.33%
- A2** OUTLET STRUCTURE
RIM = 36.00
2" LOW FLOW ORIFICE INV. = 34.17
9" x 4" HIGH FLOW ORIFICE INV. = 35.33
(SEE DETAIL C4, SHEET C-505)
- B0** VDOT STD 12" ES-1
INV. OUT = 35.55
0.5 CU. YDS. VDOT ST'D EC-1
CLASS A1 REQ'D., TYPE A INSTALLATION
B1 TO **B0**
56 LF 12" RCP @ 0.36%
- B1** VDOT STD 12" ES-1
INV. IN = 35.75
0.5 CU. YDS. VDOT ST'D EC-1
CLASS A1 REQ'D., TYPE A INSTALLATION

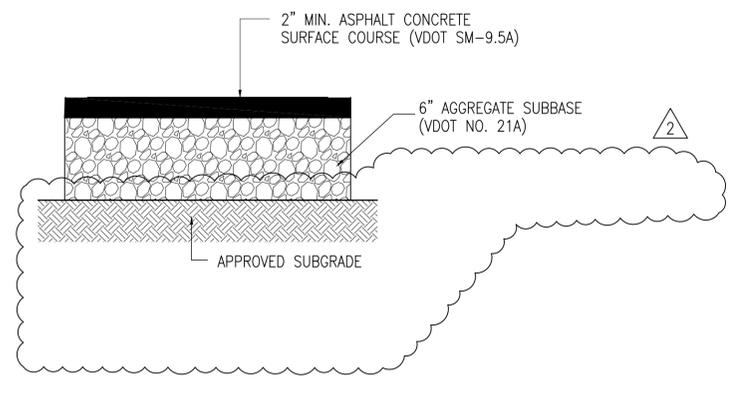
DATE	05/11/16	DATE	01/21/16	APPR
DESCRIPTION	GENERAL REVISIONS 01	DESCRIPTION	GENERAL REVISIONS 01	APPR
HERM RAWLINGS Satisfactory to: DATE MM/DD/YY DES: BSS DRW: BSS CHK: PM/TM: JTL/APK BRANCH MANAGER: CHIEF ENG/ARCH: RLW FIRE PROTECTION: DPS				
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND HAMPTON ROADS IPT SURFACE COMBAT SYSTEM CENTER WALLOPS ISLAND, VA HOUSING WELCOME CENTER PHASE 2 EROSION AND SEDIMENT CONTROL AND GRADING PLAN				
SCALE: AS SHOWN PROJECT NO.: 1366574 CONSTR. CONTR. NO.: NAVFAC DRAWING NO.: 12708187 SHEET 15 OF 70 CG101 <small>DRAWING REVISION: 10 MARCH 2009</small>				



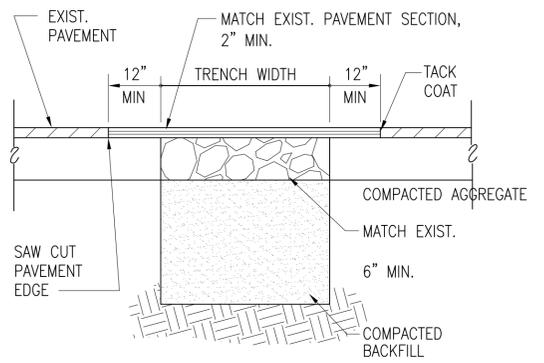
B1 CONCRETE SIDEWALK DETAILS
NOT TO SCALE



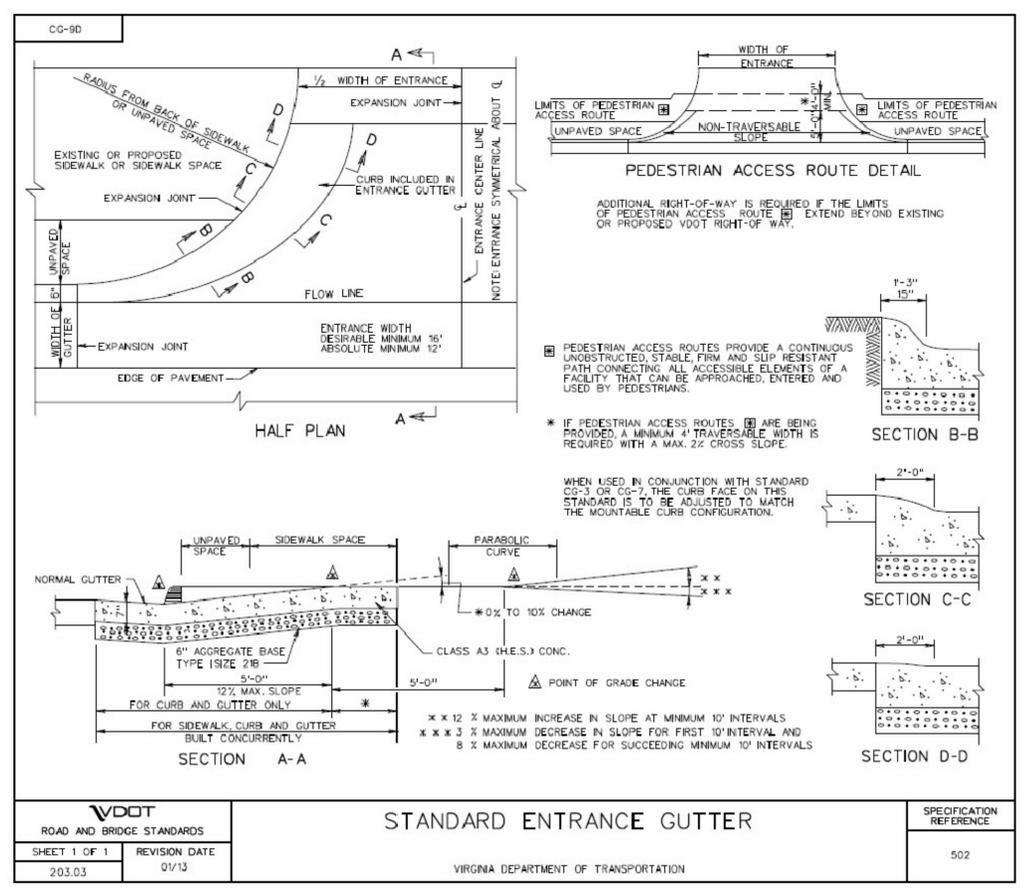
B2 CONCRETE UTILITY PAD
NOT TO SCALE



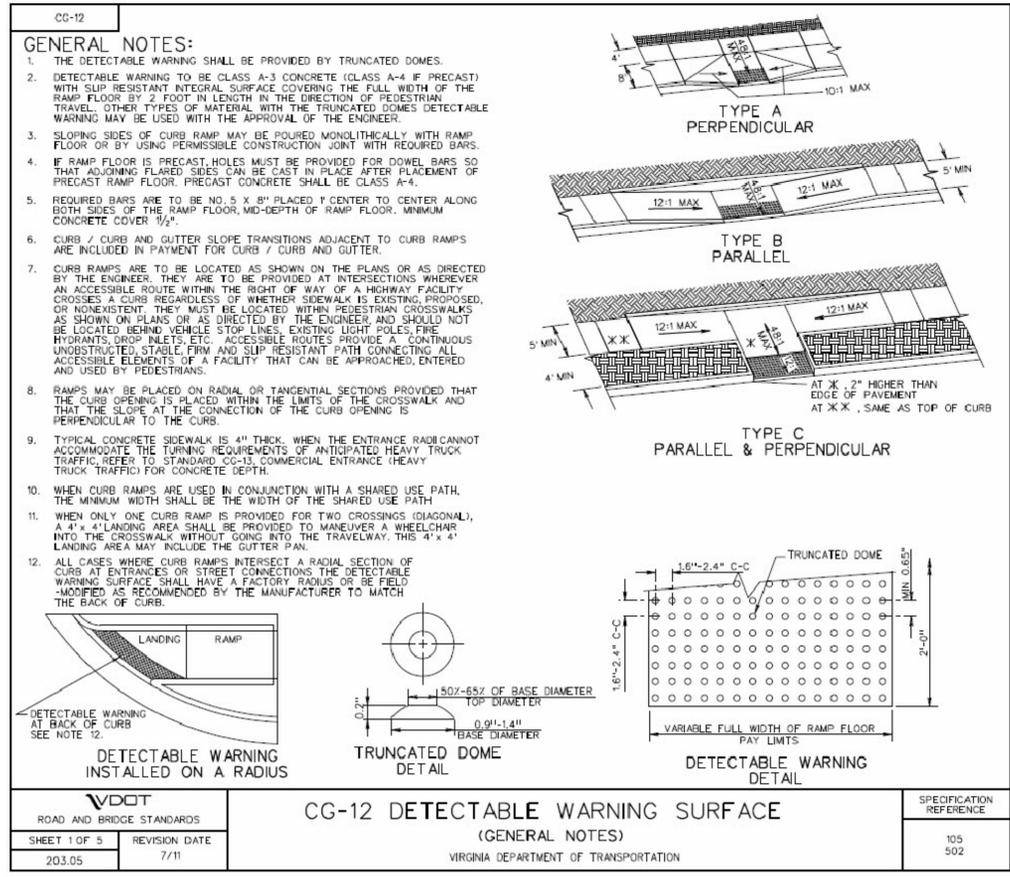
B3 BITUMINOUS PAVEMENT SECTION
NOT TO SCALE



B4 UTILITY BITUMINOUS PAVEMENT PATCH
NOT TO SCALE



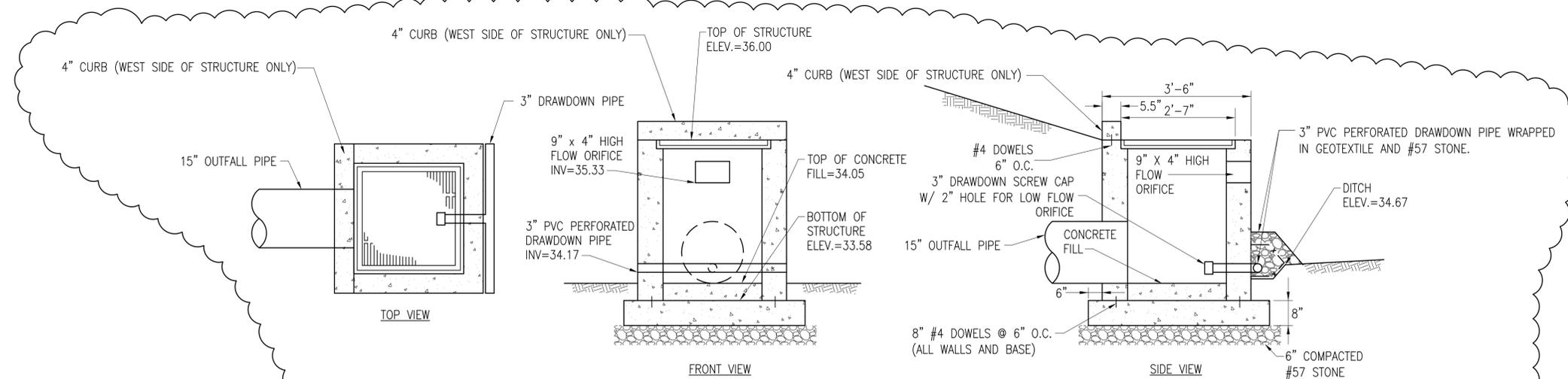
VDOT ROAD AND BRIDGE STANDARDS
SHEET 1 OF 1 REVISION DATE 01/13 203.03
STANDARD ENTRANCE GUTTER
VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIFICATION REFERENCE 502



VDOT ROAD AND BRIDGE STANDARDS
SHEET 1 OF 5 REVISION DATE 7/11 203.05
CG-12 DETECTABLE WARNING SURFACE (GENERAL NOTES)
VIRGINIA DEPARTMENT OF TRANSPORTATION
SPECIFICATION REFERENCE 105 502

DATE	05/11/16	01/21/16	APR
SYN	GENERAL REVISIONS	GENERAL REVISIONS 01	DESCRIPTION
HERM RAWLINGS Satisfactory to: BSS / Date: MM/DD/YY DES: BSS / DRW: BSS / CHK: PM/DM: JTL/APK BRANCH MANAGER: RLW FIRE PROTECTION: DPS			
NAVY FACILITIES ENGINEERING COMMAND NAVAL FACILITIES ENGINEERING COMMAND SURFACE COMBAT SYSTEM CENTER HOUSING WELCOME CENTER CIVIL DETAILS			
SCALE: AS SHOWN EPROJECT NO.: 1366574 CONSTR. CONTR. NO.: NAVFAC DRAWING NO.: 12708189 SHEET 17 OF 70 C-502 DRAWING REVISION: 10 MARCH 2009			

FILE NAME: P:\VA\Wallops Island\MILCON\2016_1366574_P23B_DBB_HousingWelcomeCenter\B_Design\Drawings\Sheet Files\05_Civil\F23B-1366574-C-505.dwg LAYOUT NAME: C-505 PLOTTED: Monday, May 16, 2016 8:04am USER: benjamin.slaughter



NOTES:

1. 8" CONCRETE WALLS WITH #4 BARS E.W. @ 6" O.C.
2. 3" PVC DRAWDOWN PIPE WITH THREADED CLEANOUT PLUG WITH 2" HOLE FOR LOW FLOW ORIFICE. LOCATE ON EAST SIDE OF STRUCTURE.
3. ALL CONCRETE SHALL BE VDOT CLASS A-3.
4. UNITS MAY BE PRECAST OR CAST IN PLACE.
5. REFER TO PLAN SHEETS FOR ACTUAL PIPE AND STRUCTURE ORIENTATION.

C4 OUTLET STRUCTURE

NOT TO SCALE

NOTE: THE SOURCE FOR THIS DETAIL IS NAVFAC. CONTACT CONTRACTING OFFICER FOR ANY QUESTIONS.

**EROSION & SEDIMENT CONTROL TECHNICAL BULLETIN No. 4
NUTRIENT MANAGEMENT FOR DEVELOPMENT SITES**

SUMMARY OF FERTILIZER SPECIFICATION REVISIONS FOR ESTABLISHMENT OF TURF

STANDARDS & SPECIFICATIONS		STANDARDS & SP2003 URBAN NUTRIENT MANAGEMENT TECHNICAL BULLETIN
3.31 TEMPORARY SEEDING		10-10-10 FERTILIZER APPLIED AT RATE OF 450 LBS/ACRE OR 10 LBS/ 1,000 SQFT.
3.32 PERMANENT SEEDING	MIXED GRASSES & LEGUMES	10-20-10 FERTILIZER APPLIED AT RATE OF 500 LBS/ACRE OR 12 LBS/ 1,000 SQFT.
	LEGUMES STANDS ONLY	APPLY THE EQUIVALENT OF 100 LBS. OF PHOSPHATE (P ₂ O ₅) AND 100 LBS. OF POTASH (K ₂ O) PER ACRE. NO NITROGEN (N)
	GRASS STANDS ONLY	10-20-10 FERTILIZER APPLIED AT RATE OF 500 LBS/ACRE OR 12 LBS/ 1,000 SQFT.
3.33 SODDING		10-10-10 FERTILIZER APPLIED AT RATE OF 450 LBS/ACRE OR 10 LBS/ 1,000 SQFT. NOTE: FOR COOL SEASON GRASSES APPLY FERTILIZER IN FALL OR SPRING. FOR WARM SEASON GRASSES APPLY THE FERTILIZER IN LATE SPRING OR SUMMER ONLY.
3.34 BERMUDAGRASS & ZOYSIAGRASS ESTABLISHMENT		10-10-10 FERTILIZER APPLIED AT RATE OF 500 LBS/ACRE OR 12 LBS/ 1,000 SQFT. APPLY ADDITIONAL PHOSPHORUS AND POTASSIUM 30-60 DAYS LATER BASED ON THE SOIL TEST. APPLY AN ADDITIONAL EQUIVALENT OF 1 LB./1,000 SQFT. OF NITROGEN WHEN THE P & K ARE APPLIED.

**TABLE 3.31-B
(REVISED JUNE 2003)
TEMPORARY SEEDING SPECIFICATIONS QUICK REFERENCE FOR ALL REGIONS**

SEED		
APPLICATION DATES	SPECIES	APPLICATION RATES
SEPT. 1 - FEB. 15	50/50 MIX OF ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) & CEREAL (WINTER) RYE (SECALE CEREALE)	50-100 (LBS/ACRE)
FEB. 16 - APR. 30	ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM)	60-100 (LBS/ACRE)
MAY 1- AUG. 31	GERMAN MILLET	50(LBS/ACRE)

APPROVED: _____ DATE: 05/11/16
 FOR COMMANDER NAVFAC: _____ DATE: 01/21/16
 ACTIVITY: _____
 HERM RAWLINGS
 Satisfactory to: _____ DATE: MM/DD/YY
 DES: BSS DRAW: BSS CHK: _____
 PM/DM: JTL/APK
 BRANCH MANAGER: _____
 CHIEF ENG/ARCH: RLW
 FIRE PROTECTION: DPS

NAVY FACILITIES ENGINEERING COMMAND
 NAVFAC ISLAND, VA
 NAVFAC FACILITIES ENGINEERING COMMAND
 WALLOPS ISLAND, VA
 SURFACE COMBAT SYSTEM CENTER
HOUSING WELCOME CENTER
 CIVIL DETAILS

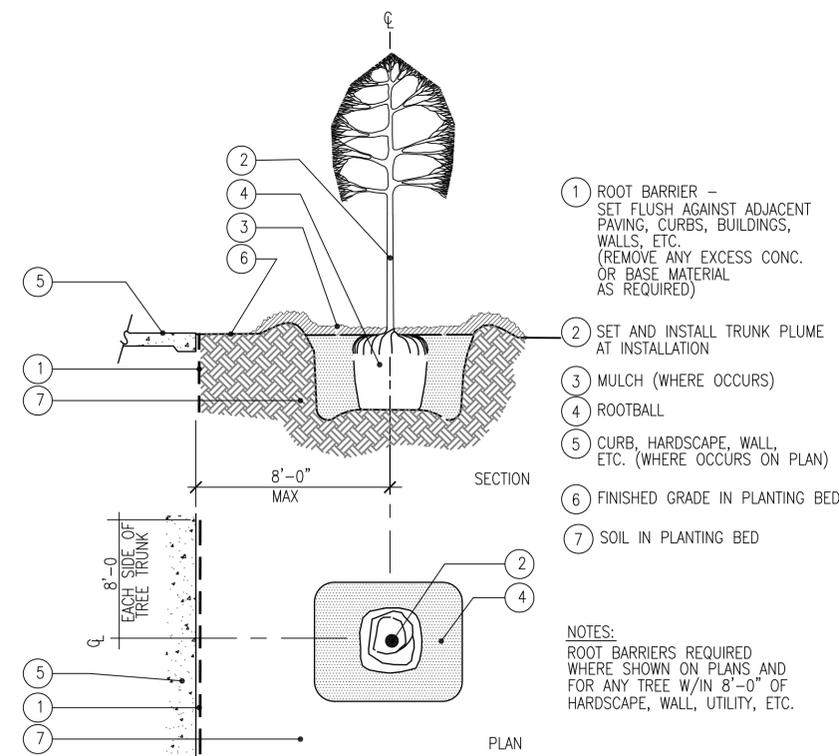
DEPARTMENT OF THE NAVY
 HAMPTON ROADS IPT
 SCALE: AS SHOWN
 PROJECT NO.: 1366574
 CONSTR. CONTR. NO.: _____
 NAVFAC DRAWING NO.: 12708192
 SHEET 20 OF 70
C-505
DRAWFORM REVISION: 10 MARCH 2009

PLANT MATERIAL SCHEDULE

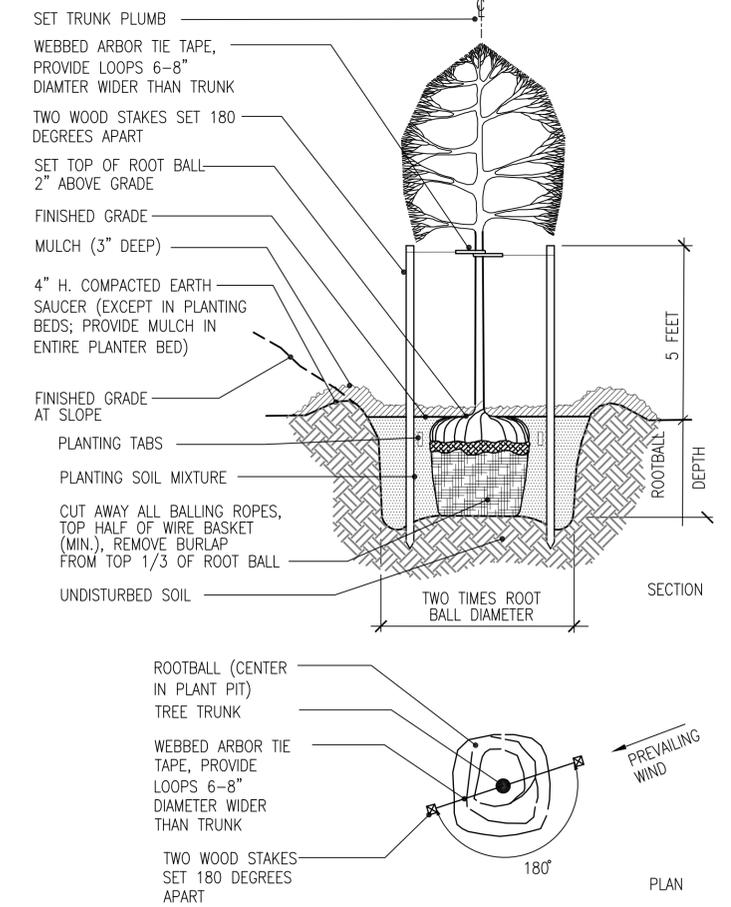
	KEY	BOTANICAL NAME	COMMON NAME	QTY	HEIGHT	SPREAD	CALIPER	DETAIL	SIZE	REMARKS
TREES	ZEL SER 'GV'	ZELKOVA SERRATA 'GREEN VASE'	GREEN VASE JAPANESE ZELKOVA	4	14-16'	6-8'	3" MIN.	A5 & C5	BALL AND BURLAP	FULL BRANCHING, REGULAR SHAPE, 4' CLEAR TRUNK
	QUE PHE	QUERCUS PHELLOS	WILLOW OAK	2	14-16'	6-8'	3" MIN.	A5 & C5	BALL AND BURLAP	FULL BRANCHING, REGULAR SHAPE, 4' CLEAR TRUNK
	MAG VIR	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	2	10-12'	4-6'	2.5" MIN.	A5 & C5	BALL AND BURLAP	FULL BRANCHING, REGULAR SHAPE, SINGLE 4' CLEAR TRUNK
SHRUBS/ GROUNDCOVERS	RHA IND	RHAPHIOLEPIS INDICA 'MONTO'	INDIAN PRINCESS INDIAN HAWTHORNE	24	30"	24"		A3	3 GALLON	PLANT 4'-0" O.C.
	ITE VIR	ITEA VIRGINICA 'SPRICH'	LITTLE HENRY DWARF VA SWEETSPIRE	12	20"	20"		A3	3 GALLON	PLANT 3'-0" O.C.
	ILE VER	ILEX VERTICILLATA 'SPRIBER'	BERRY NICE WINTERBERRY HOLLY	2	36"	24"		A3	5 GALLON	ACCENT PLANTING AS SHOWN
	MIS SIN	MISCANTHUS SINENSIS 'LITTLE KITTEN'	LITTLE KITTEN MAIDEN GRASS	28	18"	18"		B3	1 GALLON	PLANT 3'-0" O.C.
	PER ATR	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'	LITTLE SPIRE RUSSIAN SAGE	9	12"	12"		B3	1 GALLON	PLANT 2'-0" O.C.
	ILE VOM	ILEX VOMITORIA 'STOKE'S DWARF'	STOKE'S DWARF YAUPON HOLLY	19	30"	24"		A3	3 GALLON	PLANT 4'-0" O.C.
	PEN ALO	PENNISETUM ALOPECUROIDES	BURGUNDY BUNNY MINIATURE FOUNTAIN GRASS	11	15"	12"		B3	1 GALLON	PLANT 18" O.C.
	ROS MEI	ROSA MEIDRIFORA CORAL DRIFT	CORAL DRIFT GROUNDCOVER ROSE	12	16"	16"		A3	1 GALLON	PLANT 2'-0" O.C.
	UR SPI	LIRIOPE SPICATA	CREEPING LILY-TURF	252	10"	12"		B3	1 GALLON	PLANT 16" O.C.
	TURF	CYN DAC	CYNODON DACTYLON 'YUKON'	AS REQ'D						SEED

PLANTING NOTES

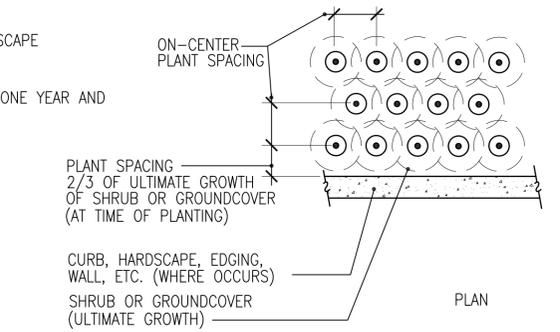
- ALL PLANTING BEDS WITH SLOPES LESS THAN 2:1 SHALL RECEIVE A MINIMUM 3" THICK LAYER OF HARDWOOD BARK MULCH UNLESS OTHERWISE NOTED. (SUBMIT 1/4 C.F. SAMPLE FOR APPROVAL)
- ALL PLANT MATERIALS SHALL BE SPOTTED IN-PLACE BY THE CONTRACTING OFFICER PRIOR TO CONTRACTOR DIGGING THE PLANTING PITS. CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER 10 WORKING DAYS PRIOR TO DELIVERY OF PLANT MATERIALS.
- ALL ROCK AND DEBRIS LARGER THAN ONE INCH (1") SHALL BE REMOVED FROM THE SIDES, BOTTOM, AND BACKFILL SOIL OF THE PLANTING PITS OF ALL PLANT MATERIALS. DISPOSE OF ALL DEBRIS OFF SITE.
- ROOT BARRIERS SHALL BE INSTALLED PER DETAIL ON THIS SHEET FOR ALL TREES LOCATED WITHIN 8'-0" IN ANY DIRECTION OF ADJACENT HARDSCAPE OR AS INDICATED ON THE PLANT MATERIAL SCHEDULE. ROOT BARRIER SHALL EXTEND LINEAR ALONG FACE OF ADJACENT HARDSCAPE FOR A DISTANCE OF 8'-0" ON EACH SIDE OF TREE TRUNK. DO NOT ENCIRCLE TREE. ROOT BARRIERS SHALL BE .90" (MIN) THICK X 24" DEEP, LINEAR TYPE WITH INTERLOCKING ENDS. MUST CONTAIN ULTRA-VIOLET (UV) INHIBITORS AND HAVE A 3/8" (MIN.) WIDE T-TOP EDGE AND GROUND ANCHORING FLANGE. NDS (#EP-2450) OR APPROVED EQUAL.
- CONTRACTOR SHALL SUBMIT A MINIMUM OF (3) 1-PINT SOIL SAMPLES (2 IN TURF AREAS AND 1 IN PLANTING BEDS) FOR AGRICULTURAL SUITABILITY SOILS TESTING (STANDARD TEST A05-N) AT A QUALIFIED SOILS TESTING LABORATORY. COLLECT SOIL SAMPLES WITHIN PROPOSED PLANTING AREAS (PA), AFTER THE COMPLETION OF GRADING OPERATIONS. KEEP TURF AREA AND SHRUB/GROUND COVER AREA SAMPLES SEPARATE. PROVIDE (1) COPY OF THE SOIL REPORTS AND RECOMMENDATIONS TO THE CONTRACTING OFFICER PRIOR TO CARRYING OUT CORRECTIVE MEASURES PER THE ANALYSIS.
- FINAL LOCATION OF STEEL EDGING SHALL BE COORDINATED WITH LANDSCAPE ARCHITECT AND CONTRACTING OFFICER.
- CONTRACTOR SHALL MAINTAIN ALL PLANTING AREAS FOR A PERIOD OF ONE YEAR AND A MINIMUM OF ONE COMPLETE GROWING SEASON.



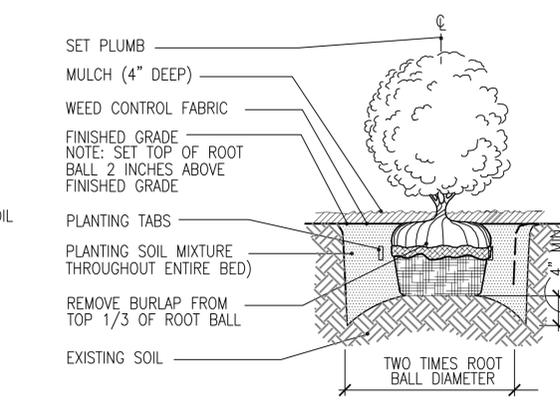
C5 ROOT BARRIER
NO SCALE



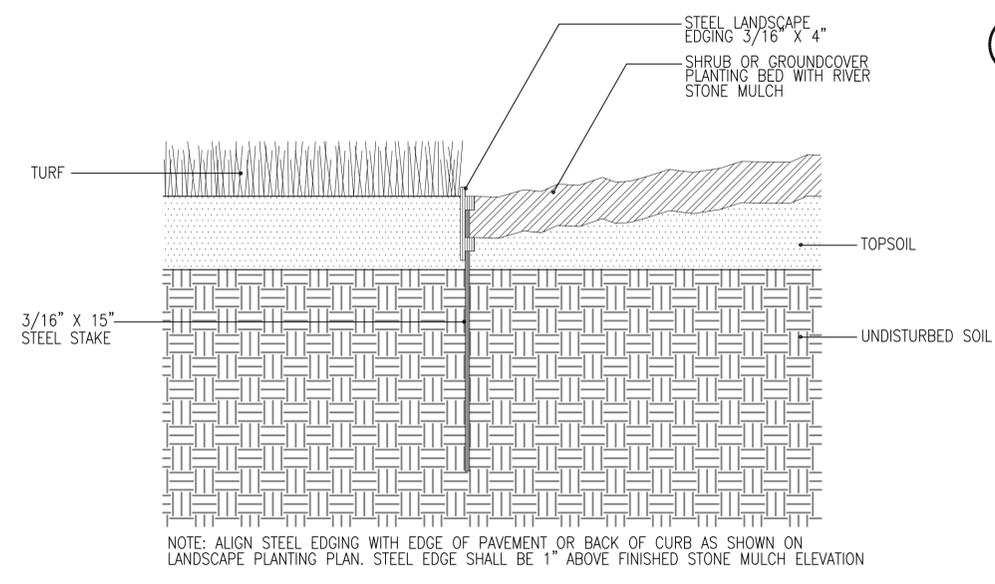
A5 TREE STAKING
NO SCALE



B3 PLANT SPACING
NO SCALE



A3 SHRUB PLANTING
NO SCALE



A2 STEEL EDGING DETAIL
NO SCALE

DATE	05/11/16	
GENERAL REVISIONS		
SYMBOL		
DESCRIPTION		
SCALE		
APPROVED		
FOR COMMANDER NAVFAC		
ACTIVITY	HERM RAWLINGS	
SATISFACTORY TO DATE	MM/DD/YY	
DES. BTG	DRW. BTG	CHK. DJD
PA/DM	JTL/APK	
BRANCH MANAGER		
CHIEF ENG/ARCH	RLW	
FIRE PROTECTION	DPS	
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND	NORFOLK, VA
NAVAL FACILITIES ENGINEERING COMMAND		
HAMPTON ROADS RPT		
SURFACE COMBAT SYSTEM CENTER	WALLOPS ISLAND, VA	
HOUSING WELCOME CENTER		
PLANT MATERIAL SCHEDULE, DETAILS AND NOTES		
SCALE:		
PROJECT NO.:	1366574	
CONSTR. CONTR. NO.:		
NAVFAC DRAWING NO.:	12708194	
SHEET	22	OF 70
LP501		
DRAWING REVISION: 10 MARCH 2009		

FILE NAME: P:\VA\Wallops_Island\MILCON\2016_1366574_P238_DDB_HousingWelcomeCenter\B_Design\Drawings\Sheet Files\06_Landscape\H238-1366574-LP501.dwg LAYOUT NAME: LP501 PLOTTED: Monday, June 06, 2016 - 2:28pm USER: allen.kline

GENERAL NOTES

- THE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, CIVIL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS, AND THE SPECIFICATIONS. THE CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF OTHER TRADES AS TO SLEEVES, CHASES, HANGERS, INSERTS, ANCHORS, HOLES, AND ADDITIONAL ITEMS TO BE PLACED OR SET IN THE STRUCTURAL WORK.
- THE CONTRACTOR SHALL PROVIDE THE TEMPORARY SHORING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT SUPPORTS AND LATERAL BRACING ARE IN PLACE.
- THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, AND OTHER REQUIREMENTS NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE STRUCTURE TO THE EXISTING. THE CONTRACTOR SHALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER PRIOR TO ORDERING MATERIALS OR BEGINNING WORK (CONSTRUCTION OR DEMOLITION).
- SHOP DRAWING REVIEW BY THE GOVERNMENT IS FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR WILL REMAIN RESPONSIBLE FOR ALL ERRORS OF DETAILING, FABRICATION, AND FOR CORRECT FITTING OF ALL STRUCTURAL MEMBERS INCLUDING COORDINATION WITH OTHER TRADES WHERE APPLICABLE. SHOP DRAWING SUBMITTALS PROCESSED BY THE GOVERNMENT DO NOT CONSTITUTE CHANGE ORDERS. ANY PROPOSED CHANGES MUST BE SUBMITTED IN A LETTER OR DETAIL

DESIGN CRITERIA NOTES

- THE APPLICABLE DESIGN STANDARDS AND/OR DESIGN CRITERIA ARE AS FOLLOWS:
 - UNIFIED FACILITIES CRITERIA (UFC) 1-200-01, GENERAL BUILDING REQUIREMENTS, WITH CHANGE 2, NOV. 2014
 - UNIFIED FACILITIES CRITERIA (UFC) 3-301-01, STRUCTURAL ENGINEERING, WITH CHANGE 1, MAY 2014
 - UNIFIED FACILITIES CRITERIA (UFC) 3-310-04, SEISMIC DESIGN OF BUILDINGS, JUNE 2013
 - INTERNATIONAL BUILDING CODE (IBC) 2012 EDITION
 - AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE) 7-10, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, 3RD EDITION
- LIVE LOADS USED IN THE DESIGN ARE AS FOLLOWS:

SLAB-ON-GRADE.....	100 PSF
ROOF.....	20 PSF
ATTIC (UNINHABITABLE WITH STORAGE).....	20 PSF
- SNOW LOADS

GROUND SNOW LOAD, (Pg).....	20 PSF
FLAT ROOF SNOW LOAD, (Pr).....	12.6 PSF
SNOW EXPOSURE FACTOR, (Ce).....	0.90
SNOW LOAD IMPORTANCE FACTOR, (Is).....	1.00
THERMAL FACTOR, (Ct).....	1.00
- WIND DESIGN CRITERIA (PER UFC 3-301-01 AND ASCE 7)

ULTIMATE DESIGN WIND SPEED, Vult (3-SECOND GUST),	125 MPH
NOMINAL DESIGN WIND SPEED, Vnsd,	96.8 MPH
RISK CATEGORY.....	II
WIND EXPOSURE CATEGORY.....	C
INTERNAL PRESSURE COEFFICIENTS.....	± 0.18
- SEISMIC DESIGN CRITERIA

RISK CATEGORY.....	II
SEISMIC IMPORTANCE FACTOR, Ie.....	1.0
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS	
1 SECOND SPECTRAL RESPONSE (S1).....	0.043
0.2 SECOND SPECTRAL RESPONSE (SS).....	0.083
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS (BASED ON USGS SITE SPECIFIC SEISMIC DESIGN MAP)	
Sds.....	0.088
SD1.....	0.069
- SEISMIC DESIGN CATEGORY..... B
- SITE CLASS..... D

BASIC STRUCTURAL AND SEISMIC RESISTING.....
LIGHT FRAMED WOOD WALLS SHEATHED W/ WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
 DESIGN BASE SHEAR.....2.13 KIPS
 SEISMIC RESPONSE COEFFICIENTS, Cs.....0.042
 RESPONSE MODIFICATION FACTOR, (R)..... 6.5
 DEFLECTION AMPLIFICATION FACTOR, (CD).....4.0
 ANALYSIS PROCEDURE..... EQUIVALENT LATERAL FORCE PROCEDURE

ATFP CRITERIA

- THE APPLICABLE DESIGN CRITERIA FOR ATFP IS AS FOLLOWS:
 - UNIFIED FACILITIES CRITERIA (UFC) 4-010-01, DoD MINIMUM ANTI-TERRORISM STANDARDS FOR BUILDINGS, WITH CHANGE 1 OCTOBER 2013
- CLASSIFICATION: **2**
 THIS FACILITY IS CLASSIFIED AS "EXEMPT" PURSUANT TO UFC 4-010-01, CHAPTER 1-9.1 AS A "LOW OCCUPANCY BUILDING."

SHALLOW FOUNDATION NOTES

- THE FOUNDATION DESIGN IS BASED ON RECOMMENDATIONS FROM THE GEOTECHNICAL DESIGN AND CONSTRUCTION RECOMMENDATIONS PREPARED BY NAVFAC MIDLANT AND DATED MAY 11, 2015. BASED ON THE GEOTECHNICAL REPORT, THE NET ALLOWABLE SOIL BEARING PRESSURE SHALL BE 2,000 PSF.
- ALL FOUNDATION BEARING SURFACES SHALL BE INSPECTED BY A QUALIFIED GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT TO ENSURE BEARING PRESSURE NOTED ABOVE IS ATTAINABLE.
- FOOTINGS SHALL BEAR, AT A MINIMUM, 18 INCHES BELOW GRADE, BUT NOT LESS THAN WOULD BE REQUIRED FOR FROST PENETRATION OR TO REACH REQUIRED BEARING PRESSURES.
- FOOTINGS SHALL BEAR ON FIRM UNDISTURBED SOIL OR ENGINEERED FILL.
- CONCRETE FOOTINGS SHALL NOT BE PLACED OVER FROZEN SOIL OR IN EXCAVATIONS SUBJECT TO WATER.
- UTILITY LINES SHALL NOT BE PLACED THROUGH OR BENEATH FOUNDATIONS WITHOUT PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER. SHOULD SUCH A CONDITION BE REQUIRED, PRIOR TO CONSTRUCTION, CONTRACTOR SHALL SUBMIT DETAILED DRAWINGS OF EACH CONDITION.
- PRIOR TO BACK FILLING ANY WALLS INTENDED TO RETAIN SOIL, TEMPORARILY BRACE WALL UNTIL ALL SUPPORTING SOIL AND/OR SLABS ARE IN PLACE AND HAVE REACHED DESIGN STRENGTH.
- MINIMUM SUBGRADE PREPARATION SHALL CONSIST OF COMPACTING SOILS UNDER BUILDINGS TO 98 PERCENT MAXIMUM DENSITY CONFORMING TO ASTM D-698. SEE SOILS REPORT AND SPECIFICATIONS FOR ANY ADDITIONAL PREPARATION OR TESTING REQUIREMENTS.

CAST-IN-PLACE CONCRETE NOTES

- CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 301 "STRUCTURAL CONCRETE FOR BUILDINGS" AND ACI 318-11 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". CONCRETE SHALL BE NORMAL WEIGHT AND SHALL OBTAIN A 28 DAY COMPRESSIVE STRENGTH AS FOLLOWS:

A. SLAB ON GRADE.....	4,000 PSI
B. EXTERIOR CONCRETE, EXPOSED TO THE WEATHER AIR-ENTRAINED PER IBC TABLE 1904.2	4,000 PSI
C. CONCRETE NOT OTHERWISE NOTED.....	3,000 PSI
- AGGREGATE USED IN CONCRETE SHALL CONFORM TO ASTM C 33 AND SHALL MEET THE FOLLOWING:

A. SLAB ON GRADE: MAXIMUM NOMINAL AGGREGATE SIZE OF NOT MORE THAN 3/4 INCH (TYPE 67 STONE). A COMBINED SIEVE ANALYSIS MUST INDICATE A WELL GRADED AGGREGATE FROM COARSEST TO FINEST WITH NOT MORE THAN 18 PERCENT AND NOT LESS THAN 8 PERCENT RETAINED ON ANY INDIVIDUAL SIEVE, EXCEPT THAT LESS THAN 8 PERCENT MAY BE RETAINED ON THE COARSEST AND NO. 50 SIEVES, AND LESS THAN 8 PERCENT MAY BE RETAINED ON SIEVES FINER THAN NO. 50. PROVIDE SAND THAT IS AT LEAST 50 PERCENT NATURAL SAND.	
B. ALL OTHER: MAXIMUM NOMINAL AGGREGATE SIZE OF NOT MORE THAN 3/4 INCH (TYPE 67 STONE).	
- THE RANGE OF SLUMP OF THE CONCRETE MIX SHALL MEET THE FOLLOWING (PRIOR TO ADDING SUPERPLASTICIZERS):

A. SLAB ON GRADE.....	1 - 4 INCHES
B. ALL OTHER.....	1 - 3 INCHES

MAXIMUM SLUMP SHOWN MAY BE INCREASED BY 1 INCH FOR METHODS OF CONSOLIDATION OTHER THAN VIBRATION. SLUMP MAY BE INCREASED TO 8 INCHES WHEN SUPERPLASTICIZERS ARE USED. SLUMP TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM C 143. PERFORM TESTS AT START OF CONCRETE PLACEMENT, WHEN TEST CYLINDERS ARE MADE, AND FOR EACH BATCH OR EVERY 20 CUBIC YARDS OF CONCRETE.

CAST-IN-PLACE CONCRETE NOTES, CONT'D

- THE MAXIMUM WATER/CEMENT RATIO OF THE CONCRETE MIX, AS MEASURED BY WEIGHT, SHALL NOT EXCEED THE FOLLOWING:

A. SLAB ON GRADE.....	0.46
B. ALL OTHER.....	0.54
- WATER SHALL BE FRESH, CLEAN AND POTABLE; FREE FROM INJURIOUS AMOUNTS OF OILS, ACIDS, ALKALIS, SALTS, ORGANIC MATERIALS OR OTHER SUBSTANCES DELETERIOUS TO CONCRETE.
- THE MINIMUM CEMENT CONTENT OF THE CONCRETE MIX SHALL NOT BE LESS THAN 6.0 SACKS PER CUBIC YARD OF CONCRETE.
- CEMENT SHALL CONFORM TO ASTM C 150, TYPE I OR II, OR ASTM C 595, TYPE IP (MS) OR IS (MS) BLENDED CEMENT EXCEPT AS MODIFIED HEREIN. PROVIDE BLENDED CEMENT THAT CONSISTS OF A MIXTURE OF ASTM C 150, TYPE II CEMENT AND ONE OF THE FOLLOWING MATERIALS: ASTM C 618 POZZOLAN/FLY ASH; ASTM C 989 GROUND GRANULATED BLAST FURNACE SLAG.
- FLY ASH AND POZZOLAN SHALL CONFORM TO ASTM C 618, TYPE N, F OR C, EXCEPT THAT THE MAXIMUM ALLOWABLE LOSS ON IGNITION MUST BE 6 PERCENT FOR TYPES N AND F. ADD WITH CEMENT. FLY ASH CONTENT MUST BE A MINIMUM OF 15 PERCENT BY WEIGHT OF CEMENTITIOUS MATERIAL PROVIDED THE FLY ASH DOES NOT REDUCE THE AMOUNT OF CEMENT IN THE CONCRETE MIX BELOW THE MINIMUM REQUIREMENTS OF LOCAL BUILDING CODES. WHERE THE USE OF FLY ASH CANNOT MEET THE MINIMUM LEVEL, PROVIDE THE MAXIMUM AMOUNT OF FLY ASH PERMISSIBLE THAT MEETS THE CODE REQUIREMENT FOR CEMENT CONTENT. REPORT THE CHEMICAL ANALYSIS OF THE FLY ASH IN ACCORDANCE WITH ASTM C 311. EVALUATE AND CLASSIFY FLY ASH IN ACCORDANCE WITH ASTM D 5759. THE RECOMMENDED MAXIMUM CONTENT FOR FLY ASH OR NATURAL POZZOLAN, BY WEIGHT OF TOTAL CEMENTITIOUS MATERIAL IS 40 PERCENT.
- GROUND, GRANULATED BLAST FURNACE SLAG SHALL CONFORM TO ASTM C 989, GRADE 120. SLAG CONTENT MUST BE A MINIMUM OF 25 PERCENT BY WEIGHT OF CEMENTITIOUS MATERIAL. THE RECOMMENDED MAXIMUM CONTENT FOR GROUND, GRANULATED BLAST FURNACE SLAG, BY WEIGHT OF THE TOTAL CEMENTITIOUS MATERIAL, IS 50 PERCENT.
- VAPOR RETARDER BENEATH CONCRETE SLAB ON GRADE SHALL CONFORM TO ASTM D 4397 POLYETHYLENE SHEETING, MINIMUM 10 MIL THICKNESS. RETARDER SHALL BE INSTALLED WITH GREATEST WIDTHS AND LENGTHS PRACTICABLE SO AS TO MINIMIZE JOINTS. LAP JOINTS A MINIMUM OF 12 INCHES AND TAPE OR SEAL CLOSED. REPLACE DAMAGED, TORN OR PUNCTURED VAPOR RETARDER. CONCRETE PLACEMENT MUST NOT DAMAGE RETARDER.
- PREFORMED EXPANSION JOINT MATERIAL SHALL CONFORM TO ONE OF THE FOLLOWING: ASTM D 1751, ASTM D 1752, CORK OR 100 PERCENT POST-CONSUMER PAPER MEETING ASTM D 1752 (SUBPARAGRAPHS 5.1 TO 5.4). MATERIAL SHALL BE 3/4 INCHES THICK.
- JOINT SEALANT SHALL CONFORM TO ASTM D 1190 OR ASTM C 920, TYPE M, CLASS 25, USE T.
- ADMIXTURES SHALL CONFORM TO THE FOLLOWING: HIGH RANGE WATER REDUCERS (SUPERPLASTICIZERS) TO ASTM C 494, TYPE F, AND ASTM C 1017; RETARDING ADMIXTURES TO ASTM C 494, TYPE B; ACCELERATING ADMIXTURES TO ASTM C 494, TYPE C; WATER-REDUCING AND RETARDING TO ASTM C494, TYPE D; WATER-REDUCING AND ACCELERATING TO ASTM C494, TYPE E.
- REINFORCING BARS SHALL CONFORM TO ASTM 615, GRADE 60, DEFORMED. WELDED WIRE FABRIC (WWF) SHALL BE EITHER 6X6XW1.4XW1.4 OR 6X6XW2.9XW2.9 IN ACCORDANCE WITH ASTM A 185, FLAT SHEETS ONLY.
- CONCRETE COVER TO REINFORCING STEEL SHALL CONFORM TO THE MINIMUM COVER RECOMMENDATIONS IN ACI 318-11 UNLESS THE DRAWINGS SHOW GREATER COVER REQUIREMENTS. MINIMUM CONCRETE COVER UNLESS NOTED OTHERWISE:

A. CONCRETE CAST AGAINST AND EXPOSED TO EARTH = 3 INCHES	
B. CONCRETE EXPOSED TO EARTH OR WEATHER = 2 INCHES	
- LAP CONTINUOUS REINFORCING STEEL A MINIMUM LENGTH OF 48 X BAR DIAMETERS OF THE SMALLER BAR BEING LAPPED.
- PROVIDE REINFORCEMENT THAT IS SUPPORTED BY SPACERS, CHAIRS OR OTHER APPROVED, NON-CORRODIBLE SUPPORTS TO PREVENT DISPLACEMENT BY CONSTRUCTION LOADS OR BY PLACING OF WET CONCRETE, IN ACCORDANCE WITH ACI REQUIREMENTS. ALL EMBEDDED ITEMS, SUCH AS WELDED PLATES AND ANCHOR BOLTS, SHALL BE ACCURATELY PLACED AND SECURELY TIED PRIOR TO POURING CONCRETE. SECURE REINFORCING TO SUPPORTS BY MEANS OF BLACK, SOFT IRON WIRE OF NOT LESS THAN 16 GAGE. SECURE BARS TO ONE ANOTHER AT INTERSECTIONS USING 18 GAGE ANNEALED WIRE. POINT WIRE TIE ENDS AWAY FROM FORMS.

CAST-IN-PLACE CONCRETE NOTES, CONT'D

- BENDING OF REINFORCING BARS PARTIALLY EMBEDDED IN CONCRETE IS NOT PERMITTED.
- CONCRETE SHALL BE MACHINE MIXED IN ACCORDANCE WITH ASTM C94. BEGIN MIXING WITHIN 30 MINIMUM AFTER THE CEMENT HAS BEEN ADDED TO THE AGGREGATES. PLACE CONCRETE WITHIN 90 MINUTES OF EITHER: ADDITION OF MIXING WATER TO CEMENT AND AGGREGATES, OR ADDITION OF CEMENT TO AGGREGATES, IF THE AIR TEMPERATURE IS LESS THAN 84 DEGREES FAHRENHEIT, EXCEPT AS FOLLOWS:
 - IF SET RETARDING ADMIXTURE IS USED AND SLUMP REQUIREMENTS CAN BE MET, THE TIME LIMIT FOR PLACING CONCRETE MAY REMAIN AT 90 MINUTES. ADDITIONAL WATER MAY BE ADDED, PROVIDED THAT BOTH THE SPECIFIED MAXIMUM SLUMP AND WATER/CEMENT RATIO ARE NOT EXCEEDED. WHEN ADDITIONAL WATER IS ADDED, AN ADDITIONAL 30 REVOLUTIONS OF THE MIXER AT MIXING SPEED IS REQUIRED TO DISSOLVE ADMIXTURES IN THE MIXING WATER AND MIX IN THE DRUM TO UNIFORMLY DISTRIBUTE THE ADMIXTURE THROUGHOUT THE BATCH.
- PLACE CONCRETE AS SOON AS PRACTICABLE AFTER THE FORMS AND REINFORCING HAVE BEEN INSPECTED AND APPROVED. WHEN SUBGRADE IS SEMIPOROUS AND DRY, SPRINKLE SUBGRADE SURFACE WITH WATER AS REQUIRED TO ELIMINATE SUCTION OF WATER FROM FRESH CONCRETE. DO NOT PLACE CONCRETE WHEN WEATHER CONDITIONS PREVENT PROPER PLACEMENT AND CONSOLIDATION. PRIOR TO PLACEMENT, REMOVE DIRT, DEBRIS, WATER, SNOW AND ICE FROM THE FORMS. DO NOT EXCEED A FREE VERTICAL DROP OF 3 FEET FROM THE POINT OF DISCHARGE. PLACE CONCRETE CONTINUOUSLY FROM ONE END OF THE STRUCTURE TO THE OTHER, AND IN LAYERS OF SUCH THICKNESS THAT NO CONCRETE IS PLACED ON PREVIOUSLY PLACED CONCRETE WHICH HAS HARDENED SUFFICIENTLY TO CAUSE THE FORMATION OF PLANES OR SEAMS OF WEAKNESS.
- TEST BOTH THE CONCRETE DELIVERED AND THE CONCRETE IN THE FORMS FOR TEMPERATURE. PERFORM TESTS IN HOT OR COLD WEATHER CONDITIONS (BELOW 50 DEGREES FAHRENHEIT AND ABOVE 80 DEGREES FAHRENHEIT) FOR EACH BATCH, OR AT EVERY 20 CUBIC YARDS OF CONCRETE, AND WHENEVER TEST CYLINDERS AND SLUMP TESTS ARE PERFORMED.
- CONCRETE PLACED IN COLD WEATHER SHALL CONFORM TO ACI REQUIREMENTS AND TO THE FOLLOWING: DO NOT ALLOW CONCRETE TEMPERATURE TO DECREASE BELOW 50 DEGREES FAHRENHEIT. OBTAIN APPROVAL OF THE CONTRACTING OFFICER PRIOR TO PLACING CONCRETE WHEN THE AMBIENT TEMPERATURE IS BELOW 40 DEGREES FAHRENHEIT OR WHEN CONCRETE IS LIKELY TO BE SUBJECT TO FREEZING TEMPERATURES WITHIN 24 HOURS. COVER CONCRETE AND PROVIDE SUFFICIENT HEAT TO MAINTAIN 50 DEGREES FAHRENHEIT ADJACENT TO BOTH THE FORMWORK AND THE STRUCTURE WHILE CURING. LIMIT THE RATE OF COOLING TO 37 DEGREES FAHRENHEIT IN ANY 1 HOUR AND 50 DEGREES FAHRENHEIT PER 24 HOURS AFTER HEAT APPLICATION.
- WHEN PLACING CONCRETE IN HOT WEATHER, PREVENT THE EVAPORATION RATE FROM EXCEEDING 0.2 POUNDS OF WATER PER SQUARE FOOT OF EXPOSED CONCRETE PER HOUR. COOL INGREDIENTS BEFORE MIXING OR USE OTHER SUITABLE MEANS TO CONTROL TEMPERATURE AND PREVENT RAPID DRYING OF NEWLY PLACED CONCRETE. START CURING WHEN THE SURFACE OF THE FRESH CONCRETE IS SUFFICIENTLY HARD TO PERMIT CURING WITHOUT DAMAGE.
- PRIOR TO FLOATING SLABS-ON-GRADE, BRING SURFACE OF CONCRETE TO THE CORRECT LEVEL WITH A STRAIGHTEDGE AND STRIKE OFF. SPRINKLING OF WATER ON THE PLASTIC SURFACE IS NOT PERMITTED.
- FLOATING OF SLABS-ON-GRADE MAY BE PERFORMED WITH A WOOD, MAGNESIUM OR COMPOSITE HAND FLOAT, A BLADED POWER TROWEL EQUIPPED WITH FLOAT SHOES, OR WITH A POWERED DISC. FLOATING MAY BEGIN WHEN THE SURFACE HAS STIFFENED SUFFICIENTLY TO PERMIT THE OPERATION. DURING OR AFTER THE FIRST FLOATING, CHECK SURFACE WITH A 10-FOOT STRAIGHTEDGE APPLIED AT NO LESS THAN (2) DIFFERENT ANGLES, ONE OF WHICH IS PERPENDICULAR TO THE DIRECTION OF STRIKE-OFF. CUT DOWN HIGH SPOTS AND FILL LOW SPOTS DURING THIS PROCEDURE TO PRODUCE A SURFACE FLAT WITHIN 1/4 INCH IN 10 FEET. FOR EXTERIOR SLABS PROVIDE A MINIMUM SLOPE OF 1/8 INCH PER FOOT TO DRAIN.
- PROVIDE WATER HOSES, PIPES AND SPRAYING EQUIPMENT TO MAINTAIN A MOIST CONCRETE SURFACE THROUGHOUT THE CURING PERIOD. PROVIDE BURLAP COVER OR OTHER SUITABLE, PERMEABLE MATERIAL WITH FOG SPRAY OR CONTINUOUS WETTING OF THE CONCRETE, WHEN WEATHER CONDITIONS PREVENT THE USE OF IMPERVIOUS MOISTURE RETAINING SHEETS. FOG SPRAY/CURING WATER SHALL NOT BE MORE THAN 50 DEGREES FAHRENHEIT COOLER THAN THE TEMPERATURE OF THE CONCRETE ITSELF.

CAST-IN-PLACE CONCRETE NOTES, CONT'D

- CONCRETE CURING MATERIALS SHALL COMPLY WITH THE FOLLOWING:
 - A. ABSORPTIVE COVER: PROVIDE BURLAP CLOTH COVER MADE FROM JUTE OR KENAF, WEIGHING 10 OUNCES PLUS OR MINUS 5 PERCENT PER SQUARE YARD WHEN CLEAN AND DRY, CONFORMING TO ASTM C171, CLASS 3, OR COTTON MATS AS APPROVED BY THE CONTRACTING OFFICER.
 - B. MOISTURE-RETAINING COVER: PROVIDE WATERPROOF PAPER COVER CONFORMING TO ASTM C 171, REGULAR OR WHITE, OR POLYETHYLENE SHEETING CONFORMING TO ASTM C 171, OR POLYETHYLENE COATED BURLAP CONSISTING OF A LAMINATE OF BURLAP AND A WHITE OPAQUE POLYETHYLENE FILM PERMANENTLY BONDED TO THE BURLAP; BURLAP MUST CONFORM TO ASTM C 171, CLASS 3, AND POLYETHYLENE FILM MUST CONFORM TO ASTM C 171. WHEN TESTED FOR WATER RETENTION IN ACCORDANCE WITH ASTM C 156, WEIGHT OF WATER LOST 72 HOURS AFTER APPLICATION OF MOISTURE RETAINING COVERING MATERIAL MUST NOT EXCEED 0.039 GRAM PER SQUARE CENTIMETER OF THE MORTAR SPECIMEN SURFACE.
- IN CONFORMANCE WITH ACI 302.1R. PROVIDE A STEEL TROWELLED FINISH FOR ALL SLABS. FIRST PROVIDE A FLOATED FINISH, THEN POWER-TROWELLING TWO TO THREE TIMES. AFTER COMPLETION OF FLOATING, THE SURFACE OF ALL SLABS-ON-GRADE MUST BE POWER TROWELLED (2) ADDITIONAL TIMES, AND FINALLY HAND TROWELLED. THE FIRST TROWELLING AFTER FLOATING NEEDS TO PRODUCE A SMOOTH SURFACE WHICH IS RELATIVELY FREE OF DEFECTS BUT WHICH MAY STILL SHOW SOME TROWEL MARKS. PERFORM ADDITIONAL TROWELLINGS BY HAND AFTER THE SURFACE HAS HARDENED SUFFICIENTLY. THE FINAL TROWELLING IS COMPLETE WHEN A RINGING SOUND IS PRODUCED AS THE TROWEL IS MOVED OVER THE SURFACE.
- ACCEPTANCE OF THE CONCRETE SHALL BE BASED ON COMPRESSIVE STRENGTH TESTS. COMPRESSIVE STRENGTH TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM C 39. MAKE (5) TEST CYLINDERS FOR EACH SET OF TESTS IN ACCORDANCE WITH ASTM C 31. TAKE PRECAUTIONS TO PREVENT EVAPORATION AND LOSS OF WATER FROM THE SPECIMENS. TEST (2) CYLINDERS AT 7 DAYS, (2) CYLINDERS AT 28 DAYS, AND HOLD (1) CYLINDER IN RESERVE. TAKE SAMPLES FOR EACH MIX DESIGN USED IN A DAY, NOT LESS THAN ONCE A DAY, NOR LESS THAN ONCE EVERY 160 CUBIC YARDS OF CONCRETE, NOR LESS THAN ONCE EVERY 5400 SQUARE FEET OF SURFACE AREA FOR SLABS. TAKE NO LESS THAN (5) SETS OF SAMPLES FOR THE ENTIRE PROJECT. AS-TESTED STRENGTH RESULT MUST BE THE AVERAGE OF (2) CYLINDERS TAKEN FROM THE SAME SAMPLE AT 28 DAYS.
- IF THE AVERAGE RESULT OF ANY (3) CONSECUTIVE STRENGTH TESTS IS LESS THAN THE COMPRESSIVE STRENGTH OF CONCRETE, OR IF ANY (1) STRENGTH TEST RESULT FALLS BELOW THE COMPRESSIVE STRENGTH OF CONCRETE BY MORE THAN 450 PSI, A MINIMUM OF (3) ASTM C42 CORE SAMPLES MUST BE TAKEN FROM EACH AREA OF IN-PLACE WORK REPRESENTED BY THE LOW-STRENGTH TEST RESULTS. CONCRETE IS CONSIDERED STRUCTURALLY ADEQUATE IF THE AVERAGE OF THESE (3) CORES IS EQUAL TO AT LEAST 85 PERCENT OF COMPRESSIVE STRENGTH OF CONCRETE, AND IF NO SINGLE CORE IS LESS THAN 75 PERCENT OF THE COMPRESSIVE STRENGTH OF CONCRETE. REMOVE CONCRETE NOT MEETING STRENGTH CRITERIA AND RE-POUR.

APPROVED	DATE
FOR COMMANDER NAVFAC	05/11/16
ACTIVITY	01/21/16
HERM RAWLINGS	
SATISFACTORY TO DATE	MM/DD/YY
DES VAA	DRW VAA
CHK NBU	
FM/DM JTL/APK	
BRANCH MANAGER	
CHEF ENG/ARCH RLW	
FIRE PROTECTION	DPS
NAVAL FACILITIES ENGINEERING COMMAND	NORFOLK VA
NAVAL FACILITIES ENGINEERING COMMAND	WALLOPS ISLAND, VA
DEPARTMENT OF THE NAVY	COMBAT SYSTEM CENTER
HAMPTON ROADS IPT	HOUSING WELCOME CENTER
	GENERAL NOTES AND ABBREVIATIONS
SCALE: AS NOTED	
PROJECT NO.: 1366574	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12708195	
SHEET 23 OF 70	
S-001	
DRAWING REVISION: 10 MARCH 2009	

FILE NAME: P:\VA\Wallops Island\NCDON\2016_1366574_P23B_DBE_HousingWelcomeCenter\B_Design\Drawings\Sheet Files\07_Structural\1366574-S-001_GENERAL NOTES_ABBREV SYMBOLS_LAYOUT.MXD USER: venomcaraborn2
 PLOTTED: Monday, May 09, 2016 - 11:46am
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REINFORCING STEEL NOTES

- 1. REINFORCING GRADES FOR CONCRETE:
A. ALL BARS, NON-WELDED..... ASTM A615, GRADE 60
B. TIES AND STIRRUPS..... ASTM A615, GRADE 40
C. STAINLESS STEEL BARS (UNLESS NOTED OTHERWISE).....
D. WELDED WIRE FABRIC..... ASTM A185
E. BARS REQUIRING WELDING:
o. ASTM A706, GRADE 60, OR:
b. ASTM A615, GRADE 60 IF THE CARBON EQUIVALENT FOR #7 BARS AND LARGER SHALL NOT BE GREATER THAN 0.45 PERCENT, AND FOR #6 BARS AND SMALLER SHALL NOT BE GREATER THAN 0.55 PERCENT, OR:
c. ASTM A615, GRADE 60 IF THE CARBON EQUIVALENT FOR ALL BARS BE LESS THAN 0.75 PERCENT, AND SPECIAL PRE-HEAT, WELDER CERTIFICATION AND CONTINUOUS INSPECTION BY A QUALIFIED LABORATORY BE PERFORMED PER AWS REQUIREMENTS.
2. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION AND DELIVERY OF REINFORCING STEEL.
3. SPLICES IN CONTINUOUS REINFORCEMENT AS USED IN WALLS, WALL FOOTINGS, ETC., SHALL HAVE A LAP OF CLASS "B" LAP (1'-6" MINIMUM) AND THE SPLICES IN ADJACENT BARS SHALL NOT BE LESS THAN 5'-0" APART. VERTICAL WALL BARS SHALL BE SPLICED AT OR NEAR FLOOR LINES. BARS MAY BE WIRED TOGETHER AT SPLICES OR LAPS EXCEPT FOR TOP REINFORCING OF BEAMS AND SLABS OR WHERE DETAILED TO BE SEPARATED. SEE BEAM DETAILS OR SCHEDULES FOR SEPARATION OF BEAM OR GIRDER BARS OVER SUPPORTS. WELDED WIRE FABRIC SHALL BE LAPPED 12 INCHES MINIMUM.
4. REINFORCEMENT PROTECTION:
A. CONCRETE CAST AGAINST EARTH..... 3"
B. CONCRETE CAST IN FORMS, EXPOSED TO WEATHER OR EARTH:
o. IF BARS ARE LARGER THAN #5..... 2"
b. IF BARS ARE #5 OR SMALLER..... 1-1/2"
c. COLUMNS, GIRDERS AND BEAMS..... 1-1/2"
d. INTERIOR WALLS AND SLABS..... 1-1/2"
e. STRUCTURAL SLABS ON GRADE..... 2"
5. EACH REINFORCING BAR SHALL BE WIRED TO A CROSS BAR AT A MAXIMUM SPACING OF 24 INCHES ON CENTER.
6. DETAIL BARS IN ACCORDANCE WITH ACI DETAILING MANUAL, LATEST EDITION. PROVIDE ALL ACCESSORIES NECESSARY TO SUPPORT REINFORCING IN POSITIONS SHOWN ON THE PLANS.
7. ALL DOWELS, ANCHOR RODS AND OTHER HARDWARE TO BE SET IN CONCRETE SHALL BE TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE.

ROUGH CARPENTRY NOTES

- 1. PROVIDE WOOD FRAMING MEMBERS IN ACCORDANCE WITH DEPARTMENT OF COMMERCE (DOC) AMERICAN SOFTWOOD LUMBER STANDARD PS20-05 AND FOLLOWING MINIMUM REQUIREMENTS:
A. MOISTURE CONTENT: 19 PERCENT MAXIMUM
B. GRADE: NO. 2
C. SPECIES: SOUTHERN PINE
2. PROVIDE CONSTRUCTION PANELS IN ACCORDANCE WITH PS1 "CONSTRUCTION AND INDUSTRIAL PLYWOOD" OR ORIENTED STRAND BOARD IN ACCORDANCE WITH PS2, PERFORMANCE STANDARDS FOR WOOD-BASED STRUCTURAL USE PANELS" AND THE FOLLOWING REQUIREMENTS:
A. SHEATHING: EXTERIOR AND INTERIOR WALLS: 1/2" APA RATED SHEATHING, SPAN RATING 32/16, EXPOSURE 1.
B. ROOF SHEATHING: SEE "ROOF FRAMING NOTES."
3. ATTACH CONSTRUCTION PANELS TO FRAMING AS INDICATED BELOW:
A. SHEATHING AT CORNERS OF EXTERIOR WALLS: 10d COMMON NAILS (3" X 0.148" DIAM.) AT 6" ON CENTER AT PANEL EDGES AND AT 12" ON CENTER ALONG INTERMEDIATE FRAMING MEMBERS.
B. SHEATHING: 10d COMMON NAILS (3" X 0.148") AT 6" ON CENTER AT PANEL FRAMING MEMBERS.
C. ROOF SHEATHING: SEE "ROOF FRAMING NOTES."
4. BOX NAILS ARE NOT ACCEPTABLE SUBSTITUTIONS FOR COMMON, OR DEFORMED NAILS FOR USE IN ROUGH CARPENTRY AND ROOF FRAMING CONSTRUCTION.

ROUGH CARPENTRY NOTES, CONT'D

- 5. USE PRESERVATIVE TREATED WOOD FRAMING MEMBERS FOR MEMBERS PERMANENTLY EXPOSED TO THE WEATHER, SILL PLATES AROUND THE BUILDING PERIMETER, AND ALL OTHER WOOD FRAMING MEMBERS IN CONTACT WITH CONCRETE OR MASONRY.
6. STEEL PLATE CONNECTORS SHALL COMPLY WITH ASTM A36 SPECIFICATIONS (Fy=36 KSI). BOLTS CONNECTING WOOD MEMBERS SHALL COMPLY WITH ASTM A307 COMMON STEEL BOLTS AND SHALL BE 3/4" DIAMETER UNLESS OTHERWISE NOTED.
7. METAL FRAMING ANCHORS SHALL COMPLY WITH ASTM A653, DESIGNATION SS. ANCHORS SHALL BE CAPABLE OF SUPPORTING THE REACTIONS INDICATED.
8. UNLESS OTHERWISE NOTED, NAIL ALL STRUCTURAL FRAMING MEMBERS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2012, TABLE 2304.9.1 "FASTENING SCHEDULE."
9. WHERE MULTIPLE FRAMING MEMBERS ARE INDICATED, FASTEN MEMBERS TOGETHER WITH 16d COMMON NAILS (3 1/2" X 0.162") AT 12" ON CENTER STAGGERED AT 2" FROM OPPOSITE EDGES.
10. AT BEARING WALLS, ALIGN ROOF TRUSSES WITH WALL STUDS. WHERE ROOF TRUSS SPACING IN NOT EQUAL TO WALL STUD SPACING REFER TO TYPICAL OFFSET ROOF TRUSS BEARING DETAIL.
11. WHERE MULTIPLE TRUSSES ARE INDICATED, PROVIDE SAME NUMBER OF VERTICAL STUDS AS MULTIPLE TRUSS PLIES DIRECTLY BENEATH TRUSS BEARING, UNLESS OTHERWISE NOTED.
12. WOOD-FRAME DIAPHRAGMS: SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICAN FOREST & PAPER ASSOCIATION (AF&PA) SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (SDPWS) MANUAL, 2008 EDITION.
13. WOOD-FRAME SHEAR WALLS: SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICAN FOREST & PAPER ASSOCIATION (AF&PA) SPECIAL DESIGN PROVISIONS FOR WIND AND SEISMIC (SDPWS) MANUAL, 2008 EDITION.

ROOF FRAMING NOTES

- 1. PRE-ENGINEERED METAL CONNECTED WOOD TRUSSES: REFERENCE SHEET S-501.
2. PLYWOOD ROOF SHEATHING SHALL BE MIN. 19/32" THICK APA RATED STRUCTURAL 1 SHEATHING, SPAN RATING 32/16, EXPOSURE 1. INSTALL WITH FACE GRAIN PERPENDICULAR TO TRUSSES AND RAFTERS.
3. SHEATHING SHALL BE FASTENED TO STRUCTURAL MEMBERS WITH 10d COMMON (3" X 0.148") THREADED HARDENED STEEL NAILS AT 6" SPACING AT PANEL EDGES AND INTERMEDIATE SUPPORTS. APPLY CONSTRUCTION ADHESIVE TO STRUCTURAL MEMBERS BEFORE PLACING SHEATHING. PROVIDE ONE METAL EDGE CLIP BETWEEN SHEATHING SUPPORTS.
4. HEADERS AND BEAMS SPANNING OVER 8' SHALL BE SUPPORTED BY DOUBLE JACK STUDS UNLESS OTHERWISE SHOWN.
5. MULTIPLE MEMBER BEAMS AND HEADERS SHALL BE FASTENED TOGETHER WITH 2 ROWS OF 16d COMMON (3 1/2" X 0.162) NAILS AT 12" O.C. SPACING. ROWS SHALL BE PLACED 3" FROM TOP AND BOTTOM OF EACH MEMBER.
6. ANCHOR ALL BEAMS AND LINTELS TO JACK STUDS WITH 2" WIDE GAUGE (GALV.) TIE STRAPS. MINIMUM ALLOWABLE LOAD: 1.5 KIPS.

SPECIAL INSPECTION NOTES

- 1. PROVIDE ALL SPECIAL INSPECTION AND TESTS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC) 2012, CHAPTER 17.
2. WOOD CONSTRUCTION: SPECIAL INSPECTIONS OF THE FABRICATION PROCESS OF PREFABRICATED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES INCLUDING METAL-PLATE CONNECTED WOOD TRUSSES SHALL BE IN ACCORDANCE WITH SECTION 1704.2.5 OF THE IBC.

STRUCTURAL ABBREVIATIONS

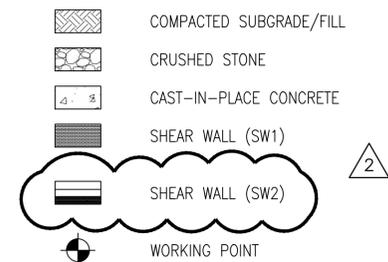
Table of structural abbreviations including AFF (Above Finished Floor), ADDL (Additional), ADJ (Adjacent), ALT (Alternate), AND (And), ARCH (Architect), ASSOC (Association), @ (At), BLDG (Building), BRDG (Bridging), BRG (Bearing), BTWN (Between), BS (Both Sides), BW (Both Ways), BOT (Bottom), BOS (Bottom of Steel), BRGC (Bracing), BRDG (Bridging), CTR (Center), C (Channel), CL (OR) CL (Center Line), CG (Center of Gravity), CMU (Concrete Masonry Unit), COL (Column), CONC (Concrete), CJ (Construction Joint), CCJ (Crack Control Joint), DCJ (Doweled Construction Joint), CLR (Clear), CY (Cubic Yard), DEMO (Demolition), DIA (OR) DIA (Diameter), DIR (Direction), DOC'S (Documents), DWG (Drawing), EA (Each), EE (Each End), EF (Each Face), EOS (Edge of Slab), EL (Elevation), EMBED (Embedment), EOR (Engineer of Record), EQ (Equal), EQ SPA (Equal Spacing), EW (Each Way), EXP (Expansion), EJ (Expansion Joint), EXTN (Extension), EXT (Exterior), EXIST (OR) EXIST (Existing), f'c (Compressive Strength of Concrete), f'm (Compressive Strength of Masonry), FB (Flat Bar), FCO (Floor Cleanout), FD (Floor Drain), FDN (Foundation), FF (Finished Floor), FLR (Floor), FOB (Face of Brick), FOC (Face of Concrete), FOM (Face of Masonry), FOS (Face of Slab), FS (Far Side), FTG (Footing), Fy (Yield Strength of Steel), GALV (Galvanized), GB (Grade Beam), GOV'T (Government), > (Greater Than), HDG (Hot Dip Galvanized), HORIZ (Horizontal), HSS (Hollow Structural Shapes), IAW (In Accordance With), INFO (Information), INSTR (Instruction), JST (Joist), KCJ (Keyed Constr Joint), KSI (Kilopounds (KIPS) per sq inch), KTR (Contractor), L (Angle), LATL (Lateral), LB (Pound), < (Less Than), LOC (Location), MAS (Masonry), MD (Metal Deck), MATL (Material), MAX (Maximum), MECH (Mechanical).

NOTE: ABBREVIATIONS LISTED BELOW MAY OR MAY NOT BE USED IN THE PROJECT

STRUCTURAL ABBREVIATIONS, CONT'D

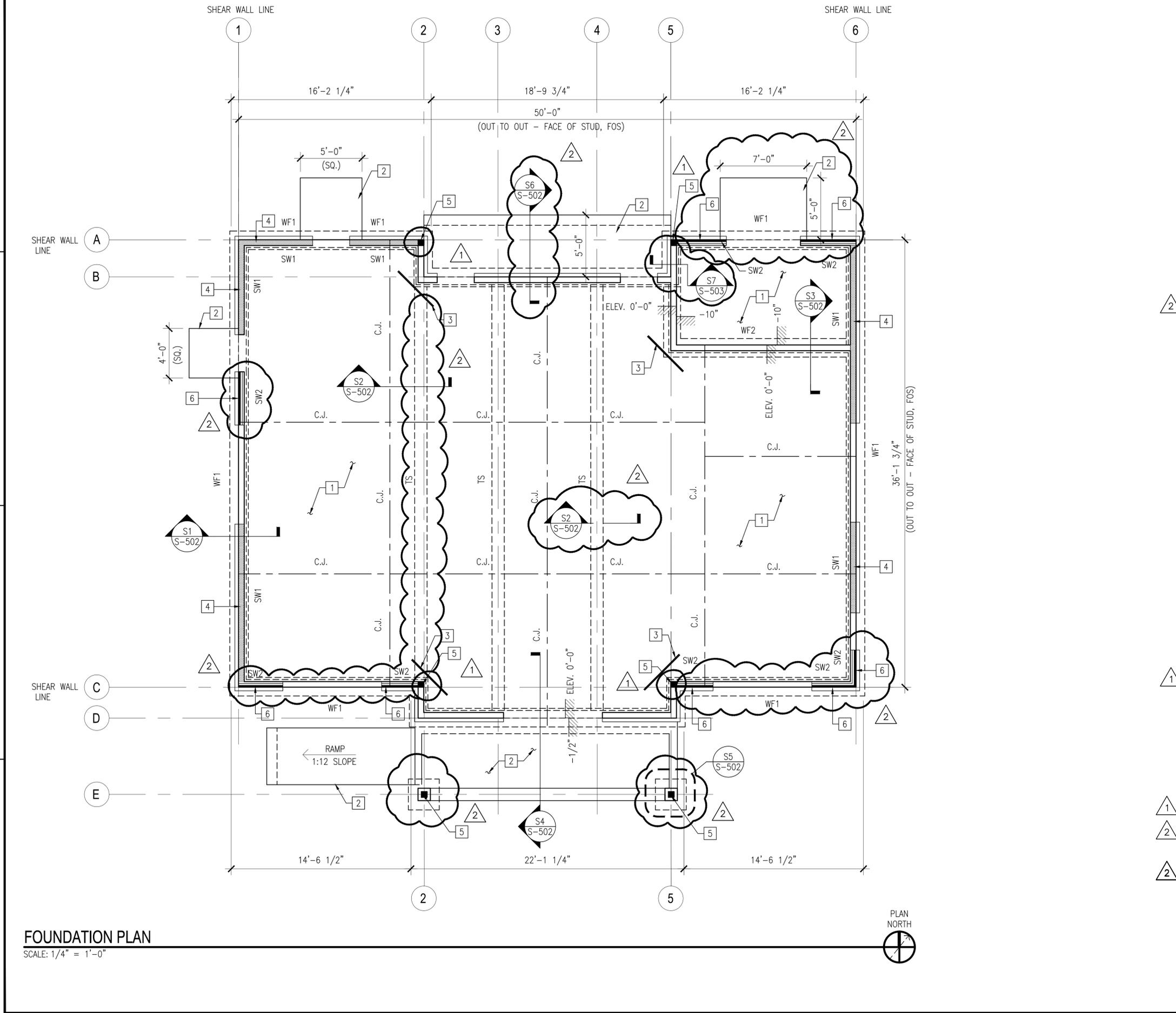
Table of structural abbreviations including MFR (Manufacturer), MIN (Minimum), MISC (Miscellaneous), MC (Moment Connection), MPH (Miles per Hour), NO. (OR) # (Number), NS (Near Side), NTS (Not to Scale), OC (On Center), OPNG (Opening), OPR (Operable), OPP (Opposite), OH (Opposite Hand), % (Percent), PDF (Power-Driven Fastener), PEJ (Preformed Expansion Joint), PERIM (Perimeter), PERP (Perpendicular), PL (OR) PL (Plate), +/- (Plus or Minus), PLF (Pounds per Linear Foot), PSF (Pounds per Square Foot), PSI (Pounds per Square Inch), R (Radius), RE: (Refer to), REF (Reference), REINF, REINF'T (Reinforce, -ment), REQ'D, REQ'T (Required, -ment), SC (Sawcut), SCHED (Schedule), SECT (Section), SF (Square Foot), SIM (Similar), SMS (Sheet Metal Screw), SOG (Slab on Grade), SPA (Spaced At, Spacing), SP'S (Settlement Plates), SPECS (Specifications), STD (Standard), STL (Steel), STIF (Stiffener), STIR (Stirrup), STR (Stringer), TANDB (Top and Bottom), THK (Thickness), THRU (Through), TOC (Top of Concrete), TOF (Top of Footing), TOJ (Top of Joist), TOM (Top of Masonry), TOS (Top of Steel), TOW (Top of Wall), TP (Test Pile), TS (Thickened Slab), TYP (Typical), UFC (Unified Facilities Criteria), UNO (Unless Noted Otherwise), VIF (Verify in Field), VERT (Vertical), W/ (With), W/IN (Within), W/OUT (Without), W/C (Water/Cement Ratio), WF (Wall Footing), WP (Working Point), WT (Weight), WWF (Welded Wire Fabric).

STRUCTURAL SYMBOLS



Project information block including: APPROVED, DATE (05/11/16), GENERAL REVISIONS (2), SEAL, A/E: N/A, FOR COMMANDER NAVFAC, ACTIVITY (HERM RAWLINGS), SATISFACTORY TO DATE (MM/DD/YY), DES (VAA), DRW (VAA), CHK (NB), FM/DM (JTL/APK), BRANCH MANAGER, CHIEF ENG/ARCH (RLW), FIRE PROTECTION (DPS), DEPARTMENT OF THE NAVY, NAVAL FACILITIES ENGINEERING COMMAND, NORFOLK, VA, SURFACE COMBAT SYSTEM CENTER, HOUSING WELCOME CENTER, GENERAL NOTES AND ABBREVIATIONS, SCALE: AS NOTED, EPROJECT NO.: 1366574, CONSTR. CONTR. NO., NAVFAC DRAWING NO. 12708196, SHEET 24 OF 70, S-002, DRAWING REVISION: 10 MARCH 2009.

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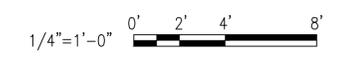
GENERAL SHEET NOTES

- REFER TO SHEETS S-001, S-002 AND S-003 FOR STRUCTURAL NOTES, ABBREVIATIONS AND LEGEND.
- DIMENSIONS HAVE BEEN PROVIDED TO THE EXTERIOR FACE OF MASONRY/FOUNDATION (FOM), OR EXT. STUDS (FOS) UNLESS OTHERWISE NOTED.
- TOP OF SLAB-ON-GRADE ELEVATION SHALL BE REFERENCE ELEVATION [0'-0"] UNLESS OTHERWISE NOTED.
- TOP OF FOOTING ELEVATION SHALL BE [-2'-0"] UNLESS OTHERWISE NOTED. REFERENCE TYPICAL FOOTING DETAILS AND TYPICAL CONTINUOUS FOOTING DETAILS ON SHEET S-502 FOR SIZE AND REINFORCING.
- CONSTRUCTION JOINTS AND SAWCUT JOINTS IN FLOOR SLABS SHALL OCCUR WHERE INDICATED ON PLANS AND DETAILS. CONSTRUCTION JOINTS IN WALLS AND FOOTINGS NEED NOT OCCUR AT THE SAME LOCATION.
- FOOTINGS ARE CENTERED UNDER WALLS AND COLUMNS UNLESS OTHERWISE NOTED.
- REFER TO ARCHITECTURAL DRAWINGS FOR SLAB FINISH REQUIREMENTS.
- CONCRETE FOOTINGS UNDER PERIMETER WALLS SHALL BE CONTINUOUS 1'-6" WIDE WALL FOUNDATIONS (WF1). REFER TO SHEET S-502 FOR REINFORCEMENT LAYOUT AND ADDITIONAL INFORMATION.
- NOT USED
- PERIMETER WALLS (ALL): 2X6 WOOD STUD MEMBERS SPACED @ 16" ON-CENTER, WITH 2X6 DOUBLE JACK STUD COLUMNS, OR AS NOTED OTHERWISE, AT CORNER AND SELECT SUPPORT LOCATIONS.
- PERIMETER WALLS INCLUDE A 3 1/2" EXTERIOR SHEATHING FACE. REFER TO THE ARCHITECTURAL DRAWINGS FOR ADDITIONAL DETAILS.
- REFER TO THE CIVIL DRAWINGS FOR THE EXTENT OF SIDEWALKS AND CONCRETE SLABS.
- COORDINATE ALL EXISTING AND NEW UNDERGROUND UTILITY LINES WITH CIVIL DRAWINGS.
- COORDINATE SIZE AND LOCATIONS OF ALL OPENINGS, SLEEVES FLOOR DEPRESSIONS, DRAINS, TRENCHES, CURBS, PADS, LEDGES, ETC. WITH THE ARCH., CIVIL AND MEP DRAWINGS.

KEYNOTES

- FLOOR CONSTRUCTION: 4" THICK CONCRETE SLAB-ON-GRADE WITH 6x6-W1.4x1.4 WELDED WIRE FABRIC SHEETS OVER A VAPOR RETARDER ON A 4" THICK GRANULAR BASE WHERE INDICATED.
- EXTERIOR SLABS, PATIOS AND RAMP: 6" THICK AIR-ENTRAINED CONCRETE SLAB WITH 6x6-W2.9x2.9 WELDED WIRE FABRIC SHEETS ON 6" THICK GRANULAR BASE WHERE INDICATED.
- REENTRANT BARS: TWO (2) #4 X 48" LONG, SPACED 1" APART, DIAGONAL BAR AT MID DEPTH OF REENTRANT CORNERS IN SLABS.
- SHEAR WALL (SW1): WHERE SHOWN, "UNBLOCKED" SHEATHING, INDIVIDUAL WALL SEGMENTS. REFERENCE ARCHITECTURAL SHEET A-101 FOR LOCATIONS OF WINDOW AND DOOR OPENINGS AND SHEET S-103 FOR SHEAR WALL SCHEDULE AND DESCRIPTION.
- POST COLUMN: 6X6, SOUTHERN PINE, GRADE 2, PRESSURE TREATED.
- SHEAR WALL (SW2): WHERE SHOWN, "BLOCKED" SHEATHING, INDIVIDUAL WALL SEGMENTS. REFERENCE SHEET S-103 FOR SHEAR WALL SCHEDULE AND DESCRIPTION.

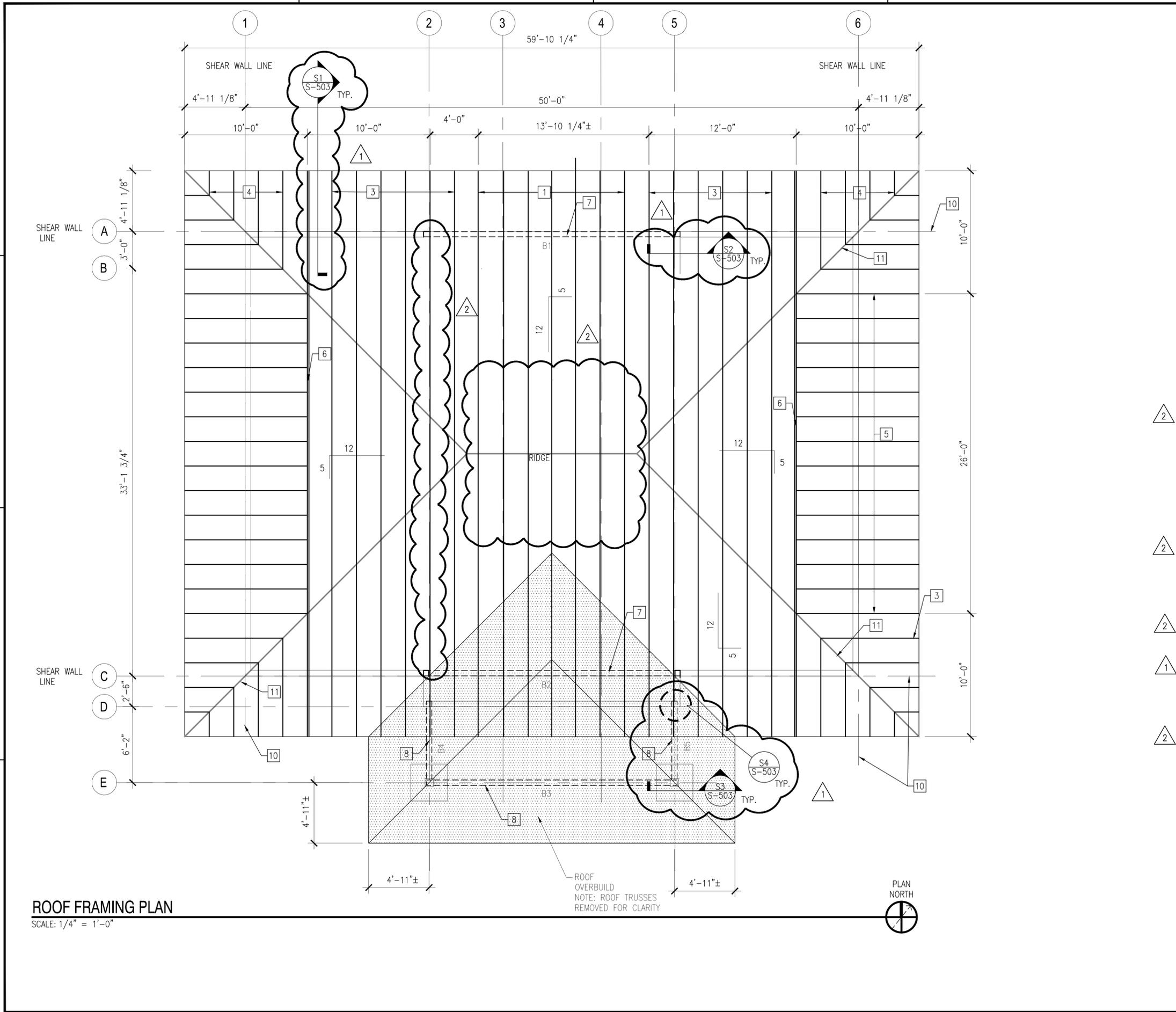
GRAPHIC SCALE



FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

APPROVED		DATE	APPR
FOR COMMANDER NAVFAC		05/11/16	
ACTIVITY		GENERAL REVISIONS	DATE
HERM RAWLINGS		1	01/21/16
SATISFACTORY TO DATE		GENERAL REVISIONS	DATE
DES: VAA		2	
DRW: VAA		1	
CHK: NBJ		SM	DESCRIPTION
FM/DM: JTL/APK		1	
BRANCH MANAGER			
CHIEF ENG/ARCH: RLW			
FIRE PROTECTION			
DPS			
NAVAL FACILITIES ENGINEERING COMMAND		NORFOLK, VA	
NAVAL FACILITIES ENGINEERING COMMAND		WALLOPS ISLAND, VA	
SURFACE COMBAT SYSTEM CENTER		HOUSING WELCOME CENTER	
FOUNDATION/SLAB PLAN			
SCALE: AS NOTED		PROJECT NO.: 1366574	
CONSTR. CONTR. NO.		NAVFAC DRAWING NO. 12708198	
		SHEET 26 OF 70	
		S-101	
		DRAWING REVISION: 10 MARCH 2009	



ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

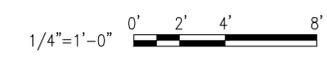
GENERAL SHEET NOTES

1. TRUSSES SPACED EVENLY UNLESS OTHERWISE NOTED. SPACING 2'-0" O.C.
2. TRUSS BEARING ELEVATION AND TOP OF WALL SHALL BE [+10'-0"] UON
3. TOP OF BEAMS SHALL BE [+10'-0"] UON
4. DIMENSIONS HAVE BEEN PROVIDED TO THE FACE OF STUD, UON.

KEYNOTES

1. COMMON TRUSSES, TYPE T1 (TYP.), 2'-0" O.C. UON
2. NOT USED
3. STEP DOWN HIP TRUSSES, (TYP.), 2'-0" O.C.
4. CORNER JACK TRUSSES, (TYP.), 2'-0" O.C.
5. END JACK TRUSSES, (TYP.) 2'-0" O.C.
6. HIP GIRDER TRUSSES, (TYP.), WHERE SHOWN
7. GLUE LAMINATED BEAMS, B1 AND B2: SIZE 5 1/8" WIDE X 17' 7/8" DEEP X 20'-9" LONG, INDUSTRIAL GRADE, SERIES 24F-E4, SOUTHERN PINE OUTER/INNER CORE LAMINATES, Fbx = 2,400 PSI. BEAMS ARE SUPPORTED BY 6 x 6 SP NO. 2 POSTS AT EACH END.
8. GLUE LAMINATED BEAMS, B3, B4, B5: SIZE 5 1/8" WIDE X 12 3/8" DEEP, INDUSTRIAL GRADE, SERIES 24F-E4, SOUTHERN PINE OUTER/INNER CORE LAMINATES, Fbx = 2,400 PSI.
9. NOT USED
10. PLYWOOD DIAPHRAGM BOUNDARY EDGE BLOCKING LINE: "UNBLOCKED." PROVIDE 2X4 CONTINUOUS BLOCKING AT ALL PERIMETER EDGES. SEE SHEETS S-103 & S-503 FOR DIAPHRAGM SCHEDULE, DESCRIPTION AND DETAIL.
11. HIP JACK TRUSS

GRAPHIC SCALE



APPROVED FOR COMMANDER NAVFAC ACTIVITY HERM RAWLINGS SATISFACTORY TO DATE MM/DD/YY DES VAA DRW VAA CHK NBJ FM/DM JTL/APK BRANCH MANAGER CHIEF ENG/ARCH RLW FIRE PROTECTION DPS	SEAL DATE 05/11/16 01/21/16 GENERAL REVISIONS 01 GENERAL REVISIONS 01 SYN DESCRIPTION
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND HAMPTON ROADS IPT SURFACE COMBAT SYSTEM CENTER NORFOLK, VA WALLOPS ISLAND, VA HOUSING WELCOME CENTER ROOF FRAMING PLAN	
SCALE: AS NOTED EPROJECT NO.: 1366574 CONSTR. CONTR. NO. NAVFAC DRAWING NO. 12708199 SHEET 27 OF 70 S-102 <small>DRAWING REVISION: 10 MARCH 2009</small>	

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FILE NAME: P:\VA\Wallops Island\Wallops Center\B_Design\Drawings\Sheet_Files\07_Structural\1366574-S-102 ROOF FRAMING PLAN_B.dwg LAYOUT NAME: S-102 PLOTTED: Monday, May 09, 2016 - 11:53am USER: vernon.anderson02

GENERAL SHEET NOTES

- COMPONENT AND CLADDING WIND PRESSURES WERE CALCULATED USING ASCE 7-10, CHAPTER 30.
- WIND LOADS SHOWN ARE NORMAL TO THE SURFACE.

NO.	DESCRIPTION	DATE
2	GENERAL REVISIONS	05/11/16



APPROVED	A/E: WFO
FOR COMMANDER NAVFAC	
ACTIVITY	HERM RAWLINGS
SATISFACTORY TO DATE	MM/DD/YY
DES VAA	DRW VAA
CHK NBJ	
FM/DM	JTL/APK
BRANCH MANAGER	
CHEF ENG/ARCH	RLW
FIRE PROTECTION	DPS

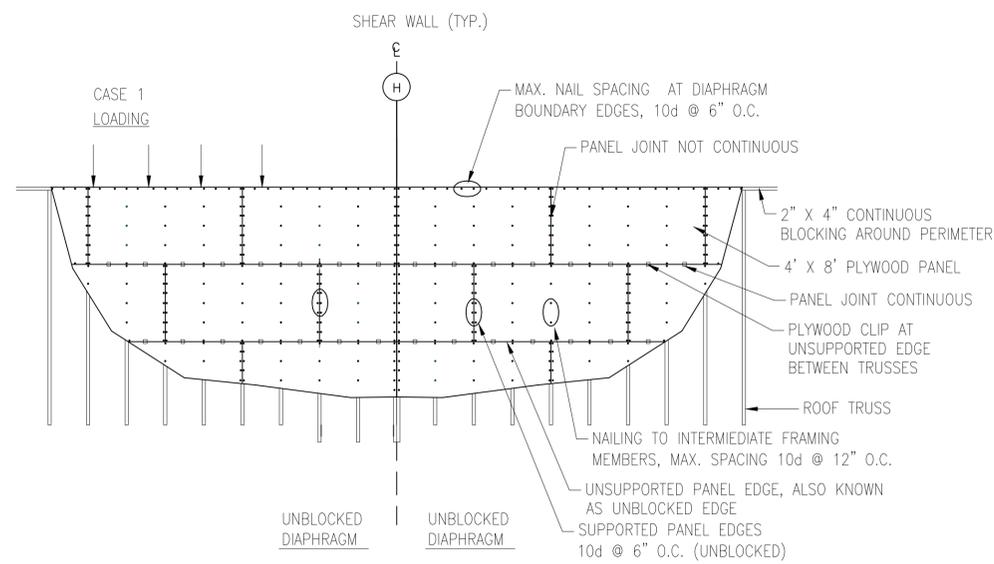
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPSON ROADS IPT

NORFOLK, VA
WALLOPS ISLAND, VA
SURFACE COMBAT SYSTEM CENTER
HOUSING WELCOME CENTER
COMPONENT & CLADDING WIND LOADING PRESSURES

SCALE:	AS NOTED
PROJECT NO.:	1366574
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12708200
SHEET	28 OF 70

S-103

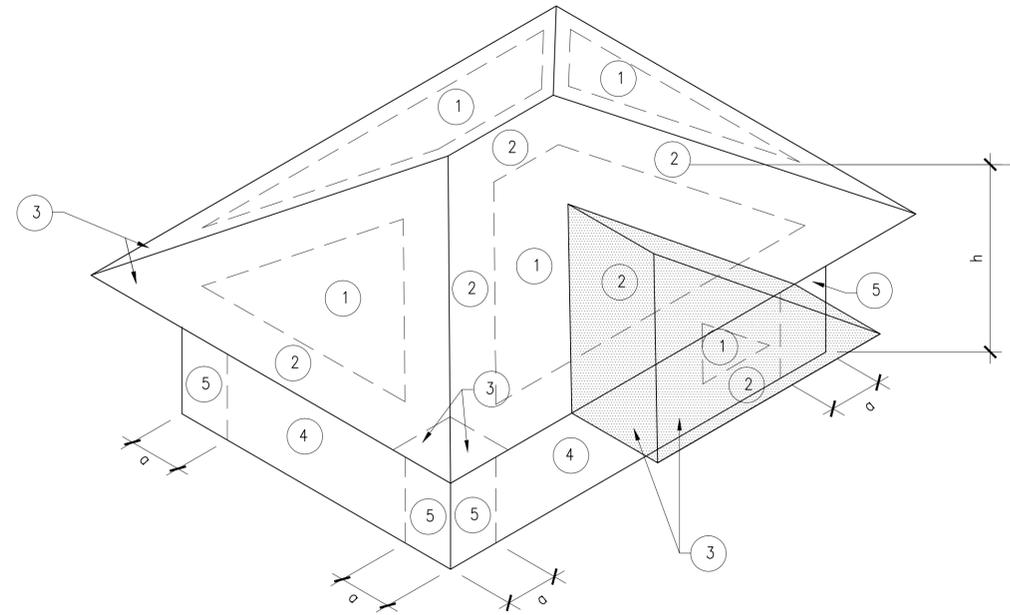
GRAPHIC SCALE



PLYWOOD ROOF DIAPHRAGM SCHEDULE	
SCALE: 3/4"=1'-0"	
NOTES:	
CASE 1 LOADING PLYWOOD DIAPHRAGM NAILING: FASTENERS: 10d COMMON NAILS (3" X 0.148" DIAMETER)	
UNBLOCKED DIAPHRAGM	
BOUNDARY EDGES:	10d's @ 6" O.C.
SUPPORTED PANEL EDGES: (PARALLEL)	10d's @ 6" O.C.
UNSUPPORTED PANEL EDGES: (PERPENDICULAR)	PLYCLIP
INTERMEDIATE FRAMING EDGES:	10d's @ 12" O.C.

SHEAR WALL SCHEDULE		
MARK	SIZE	TYPE
SW1	5'-0" WIDE (MIN.) X 10' HIGH	AF&PA, SDPWS -2008 "INDIVIDUAL FULL HEIGHT WALL SEGMENTS," "UNBLOCKED"
SW2	4'-11" (OR LESS.) X 10' HIGH	AF&PA, SDPWS -2008 "INDIVIDUAL FULL HEIGHT WALL SEGMENTS," "2X6 BLOCKING, ALL PANEL EDGES"

- NOTES:
- FULL 4 X 8 APA RATED SHEATHING PANELS (EXCLUDING BOUNDARIES) WITHOUT OPENINGS, MOUNTED PARALLEL TO STUDS, ONE SIDE ONLY.
 - FASTENERS: 10d COMMON NAILS (3" X 0.148")
PANEL EDGE SPACING - 6" O.C.
FIELD SPACING - 12" O.C.
TOP AND SILL PLATE SPACING - 4" O.C.
 - DOUBLE TOP PLATES: MOUNTED WITH STAGGERED ENDS.
 - END CHORD UPLIFT ANCHORAGE: PREFABRICATED "TENSION-TIE" ANCHOR BRACKET RATED FOR AN ALLOWABLE TENSION LOAD OF 3,800 LBS. MOUNT TO DOUBLE JACK STUD END CHORDS WITH NAIL OR SCREW FASTENERS, AND TO SILL PLATES WITH 5/8" DIAMETER ANCHOR BOLT X 7" MINIMUM EMBEDMENT (AT EACH END).
 - SILL PLATE SHEAR ANCHORAGE: 5/8" DIAMETER ANCHOR BOLTS WITH CUT WASHERS X 7" MINIMUM EMBEDMENT @ 4'-0" O.C. SPACING.



COMPONENT AND CLADDING LOADING PLAN
SCALE: NTS

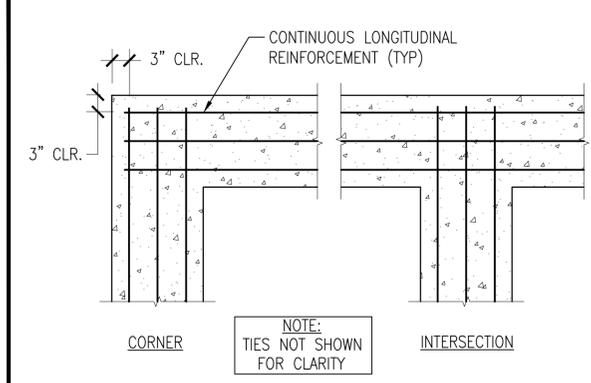
COMPONENT & CLADDING (C&C) WIND PRESSURES					
TRIBUTARY AREA (SF)	ROOF ZONE (PSF)			WALL ZONE (PSF)	
	1	2	3	4	5
10	+4/-32	+24/-54	+42/-106	+24/-27	+24/-35
25	+6/-32	+24/-54	NA	+21/-27	+21/-32
50	+6/-32	+24/-54	NA	+19/-24	+19/-47
100	+4/-32	+24/-54		+18.5/-32	+18.5/-27
200					
500					

- NOTES:
- ALL LOADS ARE IN POUNDS PER SQUARE FOOT (PSF)
 - (+) DENOTES PRESSURE, (-) DENOTES SUCTION
 - "a" SHALL BE 10% OF LEAST HORIZONTAL DIMENSION OR 0.4h WHICHEVER IS SMALLER, NOT LESS THAN 4% OF LEAST HORIZONTAL DIMENSION OR 4.4 FT.
 - "h" = MEAN ROOF HEIGHT, 15 FT.

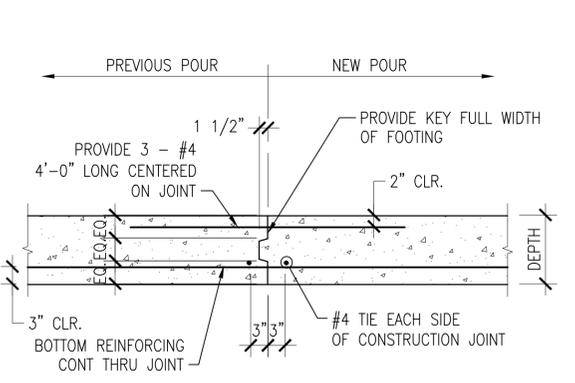
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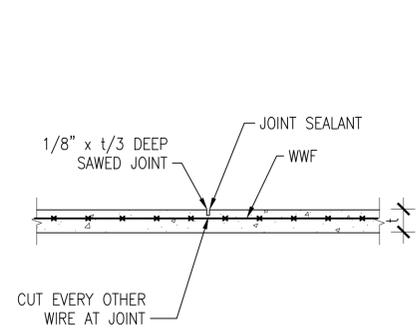
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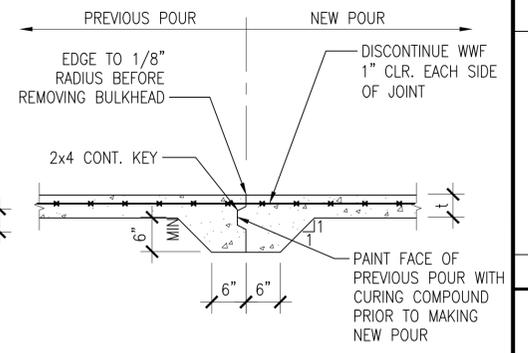
TYPICAL DETAIL AT CORNERS AND INTERSECTIONS OF CONTINUOUS FOOTINGS
SCALE: NTS



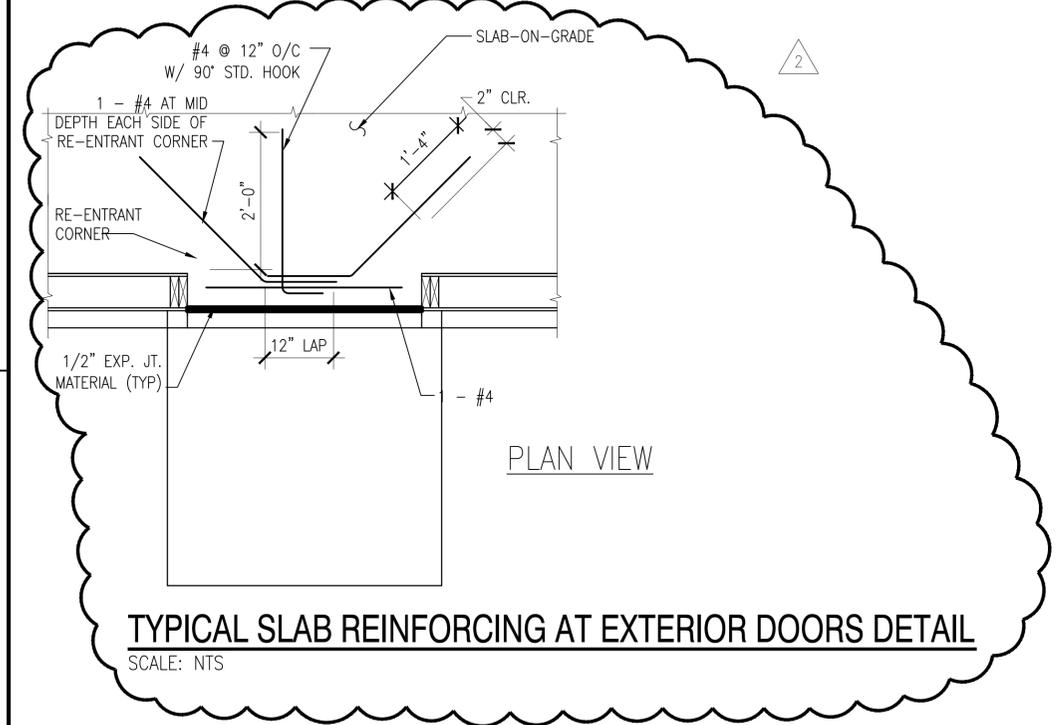
TYPICAL FOOTING CONSTRUCTION JOINT DETAIL
SCALE: NTS



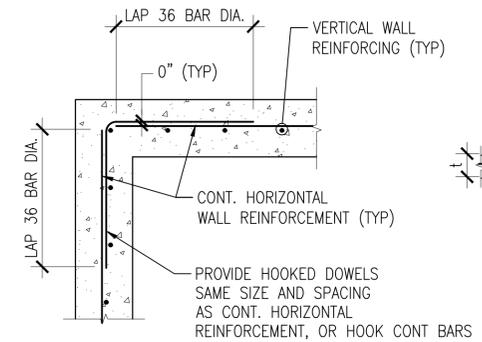
TYPICAL SAWED JOINT DETAIL
SCALE: NTS DENOTED SJ ON PLAN



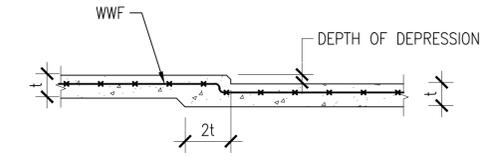
TYPICAL KEYED CONSTRUCTION JOINT DETAIL
SCALE: NTS DENOTED KCJ ON PLAN



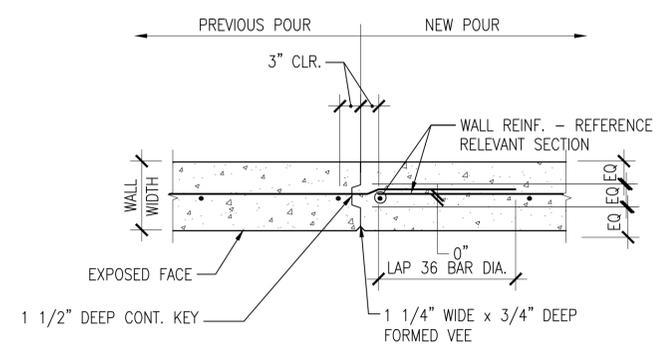
TYPICAL SLAB REINFORCING AT EXTERIOR DOORS DETAIL
SCALE: NTS



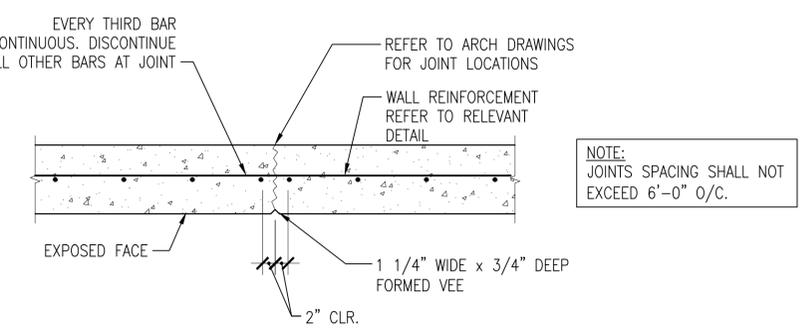
TYPICAL DETAIL AT CORNERS OF CONCRETE WALLS
SCALE: NTS



TYPICAL DEPRESSED CONCRETE SLAB DETAIL
SCALE: NTS DENOTED ON PLAN



TYPICAL VERTICAL CONSTRUCTION JOINT DETAIL
SCALE: NTS



TYPICAL VERTICAL CRACK CONTROL JOINT DETAIL
SCALE: NTS

APPROVED	DATE	05/11/16
FOR COMMANDER NAVFAC	DESCRIPTION	GENERAL REVISIONS
ACTIVITY	SM	2



APPROVED	A/E: RFD				
FOR COMMANDER NAVFAC					
ACTIVITY	HERM RAWLINGS				
SATISFACTORY TO DATE	MM/DD/YY				
DES	VAA	DRW	VAA	CHK	NBJ
FM/DM	JTL/APK				
BRANCH MANAGER					
CHIEF ENG/ARCH	RLW				
FIRE PROTECTION	DPS				

NAVY FACILITIES ENGINEERING COMMAND	NORFOLK, VA
NAVAL FACILITIES ENGINEERING COMMAND	WALLOPS ISLAND, VA
HAMPTON ROADS IPT	SURFACE COMBAT SYSTEM CENTER
	HOUSING WELCOME CENTER
	TYPICAL DETAILS

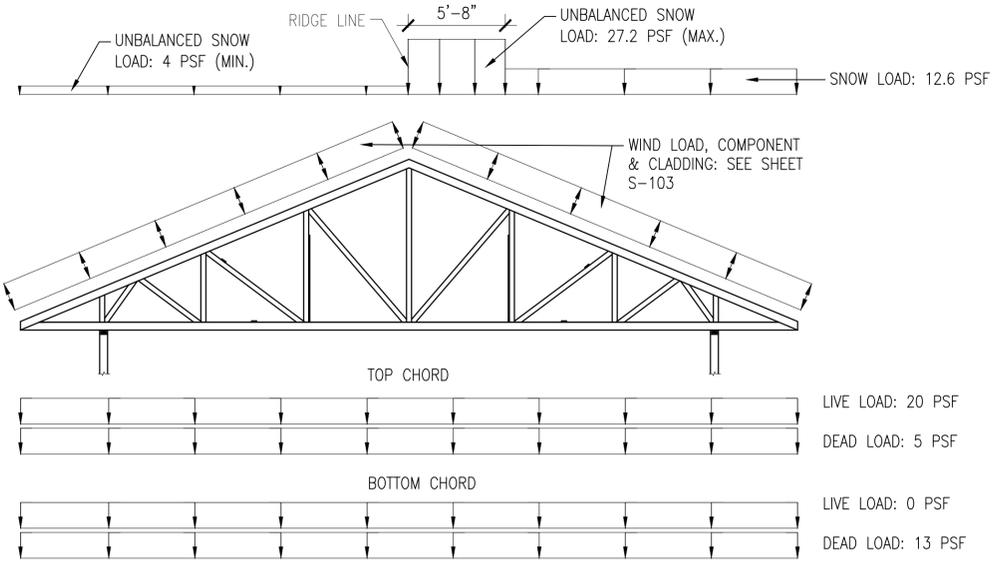
SCALE:	AS NOTED
PROJECT NO.:	1366574
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12708201
SHEET	29 OF 70
S-301	
DRAWN/REVISED TO MARCH 2009	

GENERAL SHEET NOTES

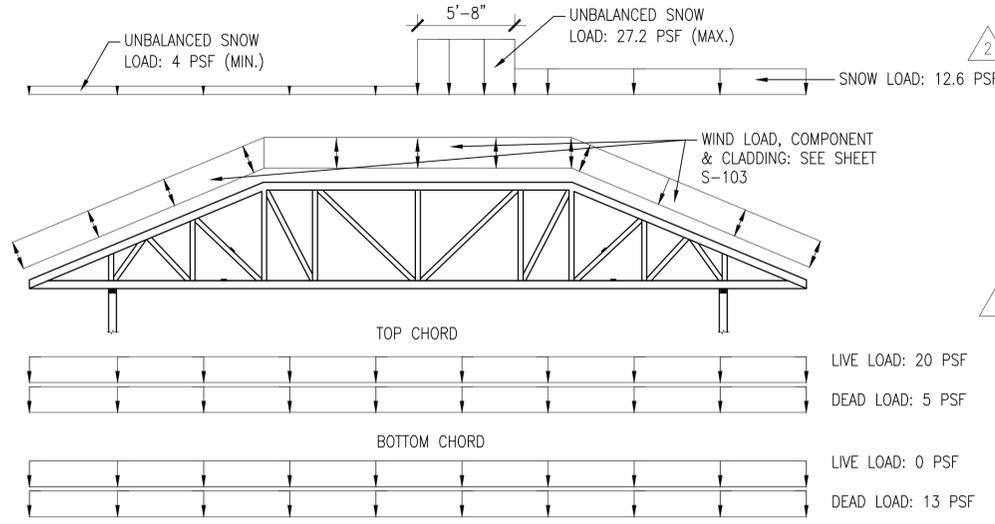
- PRE-ENGINEERED METAL CONNECTED WOOD TRUSSES SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE STANDARDS OF THE TRUSS PLATE INSTITUTE MANUAL, TPI 1, 2007.
- MINIMUM TRUSS WOOD REQUIREMENT: NO. 2 DENSE, SOUTHERN PINE.
- MINIMUM ALLOWABLE LOADS AT EACH BEARING POINT.
UPLIFT: 1.0 KIP
LATERAL: 400 LBS
- MAXIMUM DEFLECTION: L/180
- TRUSS MEMBERS SHALL BE BRACED IN ACCORDANCE WITH THE TRUSS PLATE INSTITUTE COMMENTARY AND RECOMMENDATIONS. INSTALL PERMANENT BRACING PRIOR TO ROOF SHEATHING.
- THE TRUSS LAYOUT AS ILLUSTRATED SHALL BE CONSIDERED "TYPICAL" FOR THIS TYPE OF ROOF SYSTEM. THE TRUSS MANUFACTURER MAY MODIFY ROOF FRAMING LAYOUT TO PROVIDE THE MOST ECONOMICAL ROOF FRAMING SYSTEM. THE ROOF OVERBUILD TRUSSES ARE INCLUDED AS PART OF THE MANUFACTURED TRUSS SYSTEM. NOTE: PROVIDE ACTUAL LOCATIONS OF ALL MEMBERS WITH TRUSS SUBMITTAL.
- PRIOR TO FABRICATION, THE TRUSS MANUFACTURER SHALL SUBMIT TO THE CONTRACTING OFFICER FOR REVIEW:
 - DESIGN CALCULATIONS INCLUDING DESIGN CRITERIA, REACTION FORCES, AND LOAD CAPABILITIES.
 - SHOP DRAWINGS SHOWING ERECTION PLANS, TRUSS LAYOUTS, DIMENSIONS, DETAILS, AND TEMPORARY AND PERMANENT BRACING LOCATIONS.
- DESIGN CALCULATIONS AND SHOP DRAWINGS AS DESCRIBED ABOVE SHALL BE PREPARED BY AND BEAR THE SEAL OF A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF VIRGINIA.
- USE TRUSS MANUFACTURER'S GOVERNMENT CONTRACTING OFFICER'S APPROVED SUBMITTAL DRAWING SET FOR ACTUAL TRUSS MEMBER LOCATIONS.



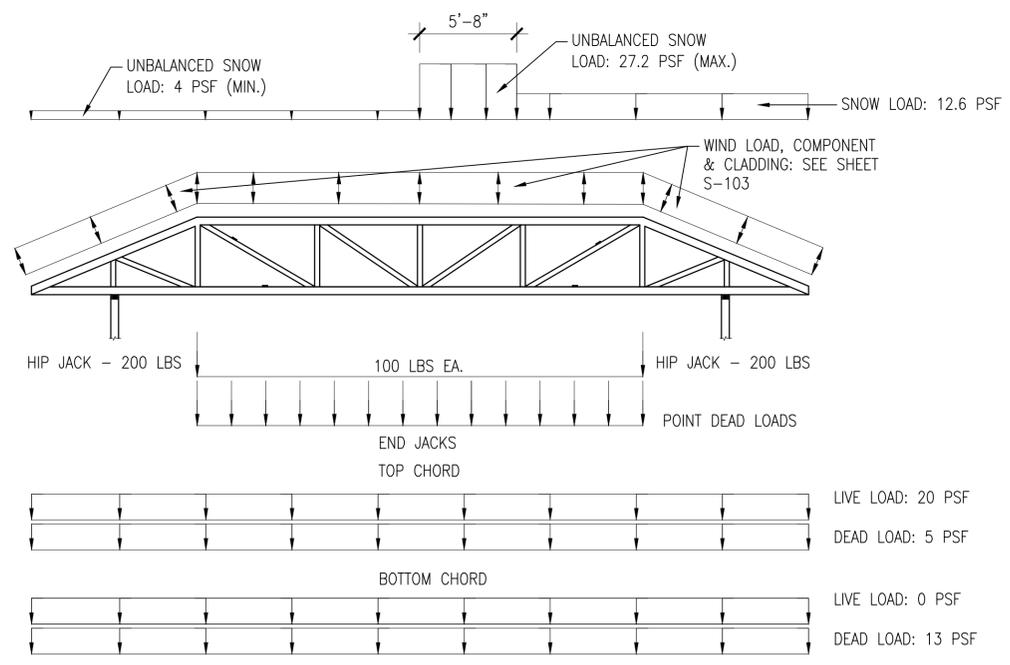
DATE	DESCRIPTION	BY	CHK
05/11/16	GENERAL REVISIONS	2	SM



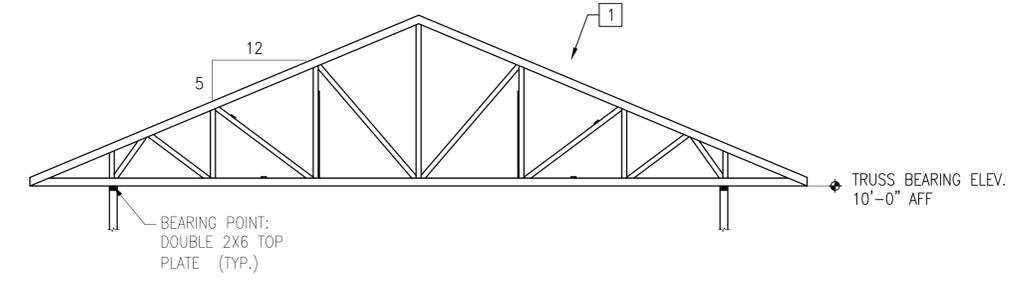
TRUSS LOADING PLAN - COMMON TRUSS T1 (TYP.)
SCALE: 3/16" = 1'-0"



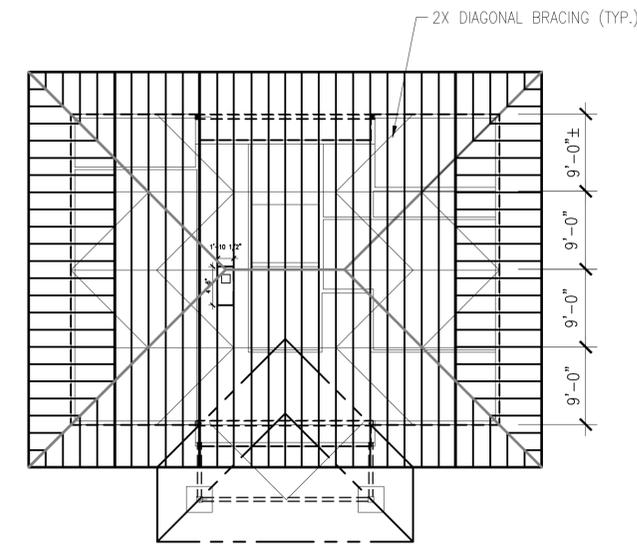
TRUSS LOADING PLAN - STEP DOWN HIP TRUSS (TYP.)
SCALE: 3/16" = 1'-0"



TRUSS LOADING PLAN - HIP GIRDER TRUSS (TYP.)
SCALE: 3/16" = 1'-0"



ROOF TRUSS PLAN - COMMON TRUSS T1 (TYP.)
SCALE: 3/16" = 1'-0"



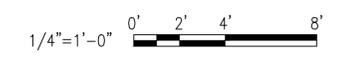
TYPICAL PERMANENT BRACING ALIGNMENT - BOTTOM CHORD
SCALE: NTS

NOTE: THIS ENTIRE SHEET HAS BEEN REVISED

KEYNOTES

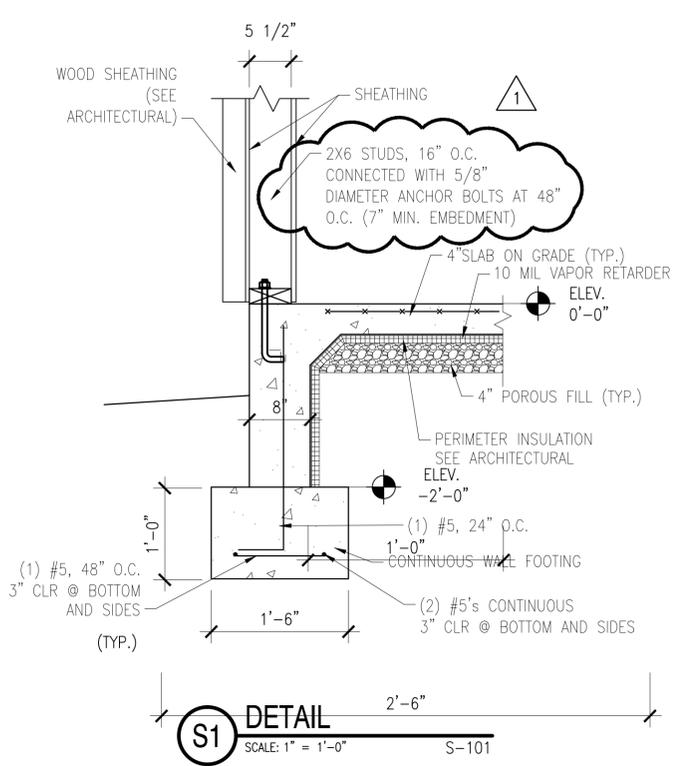
- COMMON TRUSS CONFIGURATION

GRAPHIC SCALE

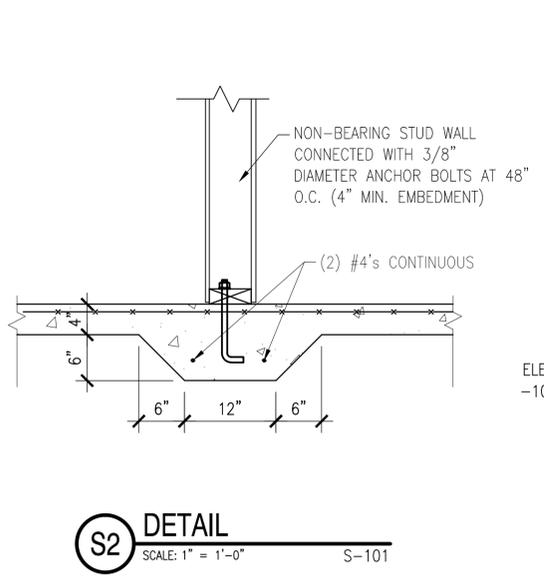


KEYNOTES

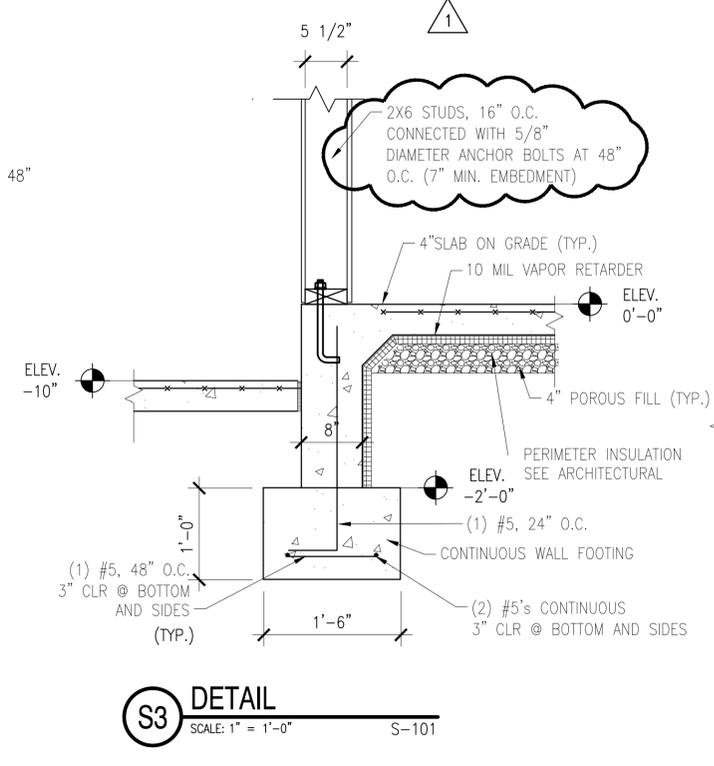
APPROVED	A/E: NFO
FOR COMMANDER: TRUSS BEARING	ACTIVITY: 10'-0" AFF
HERM RAWLINGS	
SATISFACTORY TO DATE: MM/DD/YY	
DES: VAA	DRW: VAA
CHK: NBJ	
FM/DM: JTL/APK	
BRANCH MANAGER	
CHEF/ENG/ARCH: RLW	
FIRE PROTECTION: DPS	
NAVY FACILITIES ENGINEERING COMMAND	NORFOLK, VA
NAVAL FACILITIES ENGINEERING COMMAND	WALLOPS ISLAND, VA
SURFACE COMBAT SYSTEM CENTER	HOUSING WELCOME CENTER
ROOF TRUSS PLAN	
SCALE: AS NOTED	PROJECT NO.: 1366574
CONSTR. CONTR. NO.	
NAFAC DRAWING NO. 12708202	
SHEET 30 OF 70	
S-501	
DRAWING REVISION: 10 MARCH 2009	



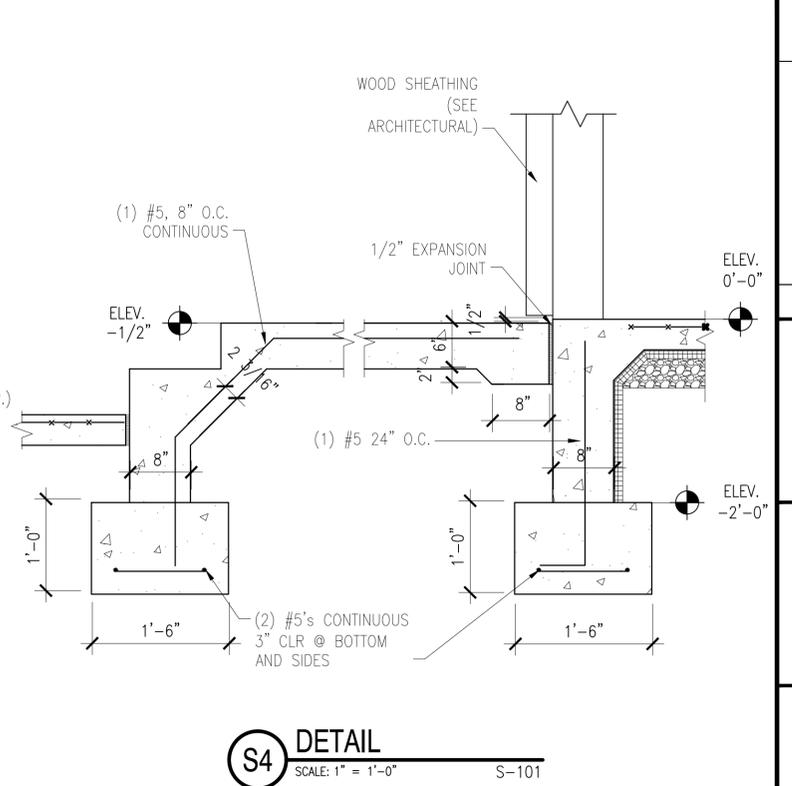
S1 DETAIL
SCALE: 1" = 1'-0" S-101



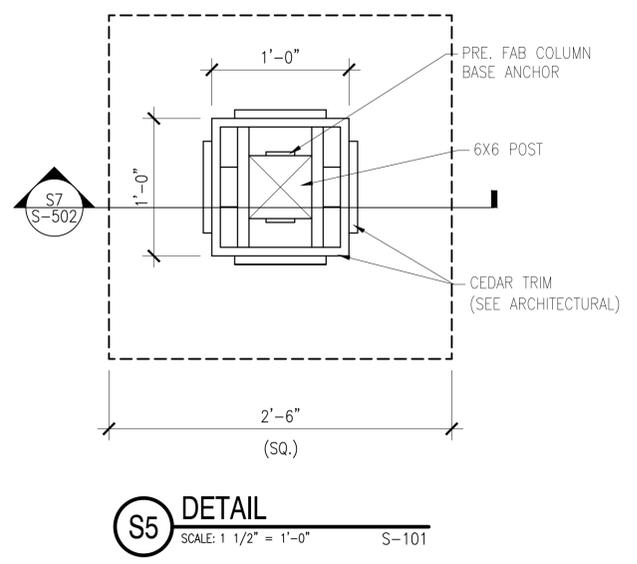
S2 DETAIL
SCALE: 1" = 1'-0" S-101



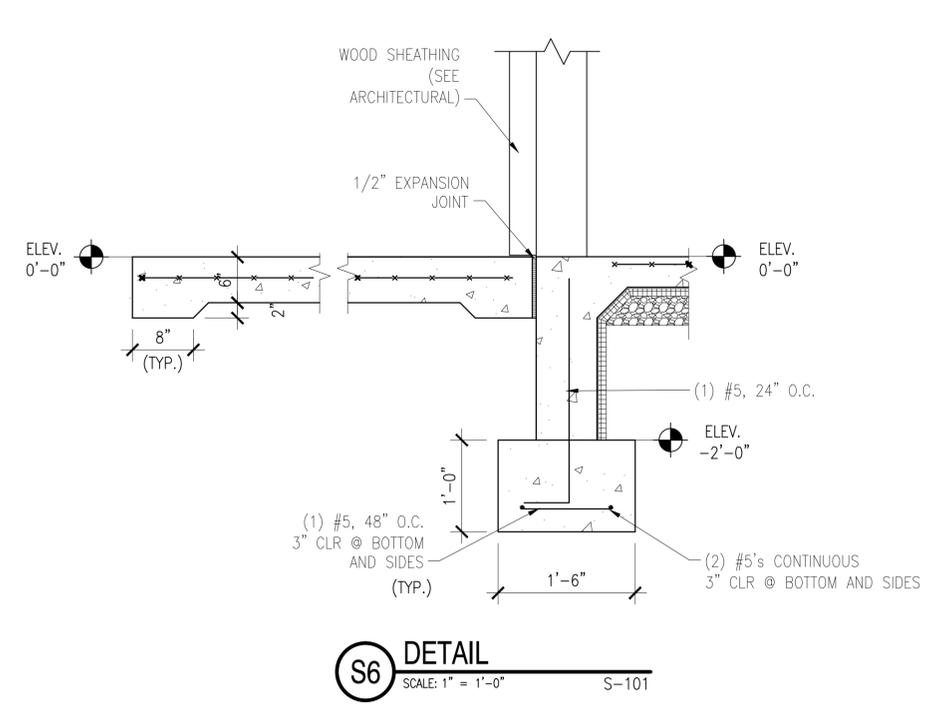
S3 DETAIL
SCALE: 1" = 1'-0" S-101



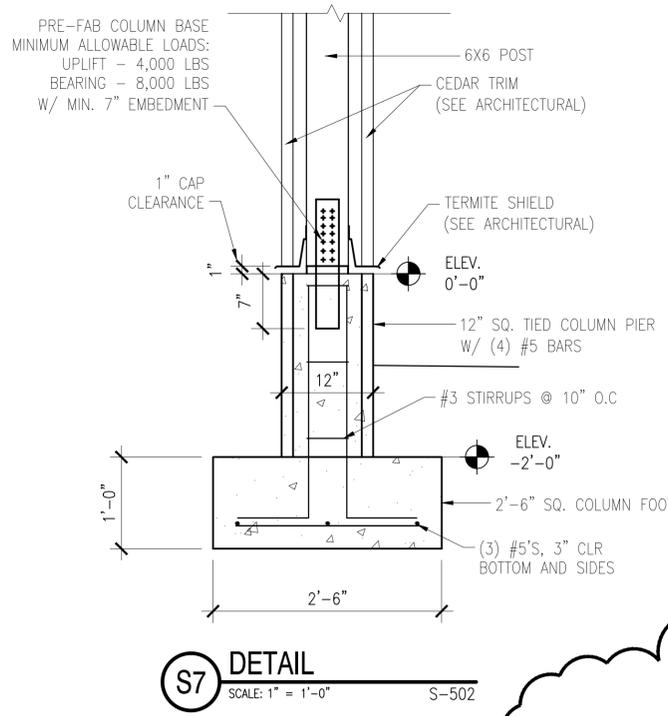
S4 DETAIL
SCALE: 1" = 1'-0" S-101



S5 DETAIL
SCALE: 1 1/2" = 1'-0" S-101



S6 DETAIL
SCALE: 1" = 1'-0" S-101



S7 DETAIL
SCALE: 1" = 1'-0" S-502

2

NOTE: THIS ENTIRE SHEET HAS BEEN REVISED

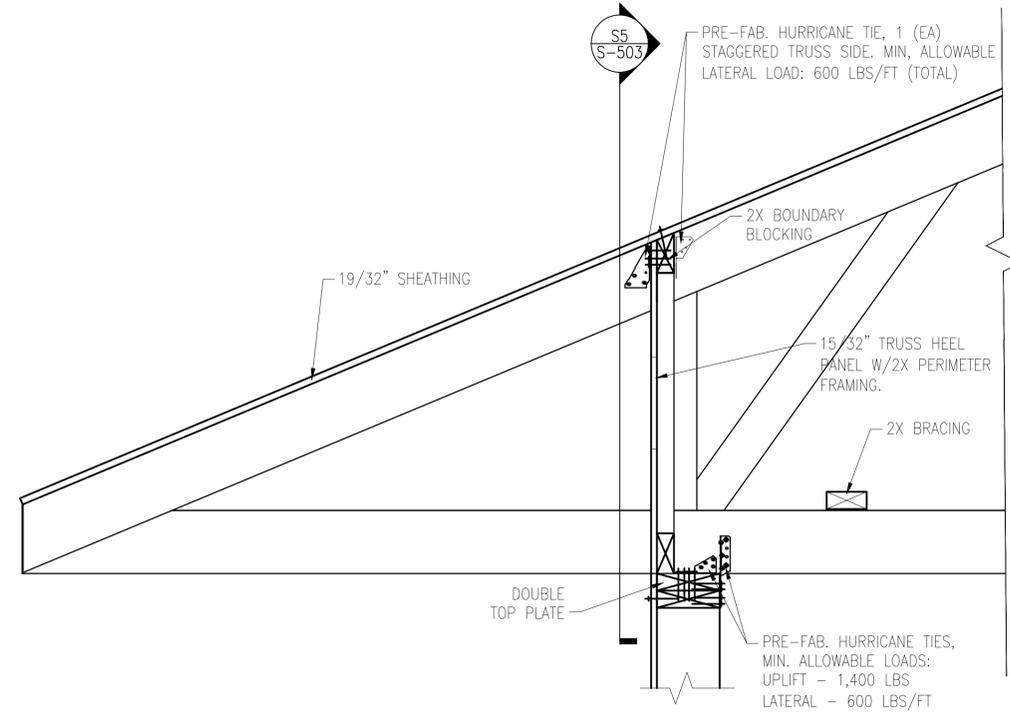
APPROVED	DATE	APP'R
FOR COMMANDER NAVFAC	05/11/16	
ACTIVITY	GENERAL REVISIONS	DATE
HERM RAWLINGS	2	01/21/16
SATISFACTORY TO DATE MM/DD/YY	1	
DES VAA DRW VAA CHK NBJ	SM	DESCRIPTION
FM/DM JTL/APK		
BRANCH MANAGER		
CHIEF ENG/ARCH RLV		
FIRE PROTECTION		
NAV FACILITIES ENGINEERING COMMAND		
NORFOLK, VA		
WALLOPS ISLAND, VA		
HOUSING WELCOME CENTER		
DEPARTMENT OF THE NAVY		
NAVAL FACILITIES ENGINEERING COMMAND		
HAMPTON ROADS IPT		
SURFACE COMBAT SYSTEM CENTER		
SCALE: AS NOTED		
EPROJECT NO.: 1366574		
CONSTR. CONTR. NO.		
NAVFAC DRAWING NO. 12708203		
SHEET 31 OF 70		
S-502		
DRAWN/REVISED 10 MARCH 2009		

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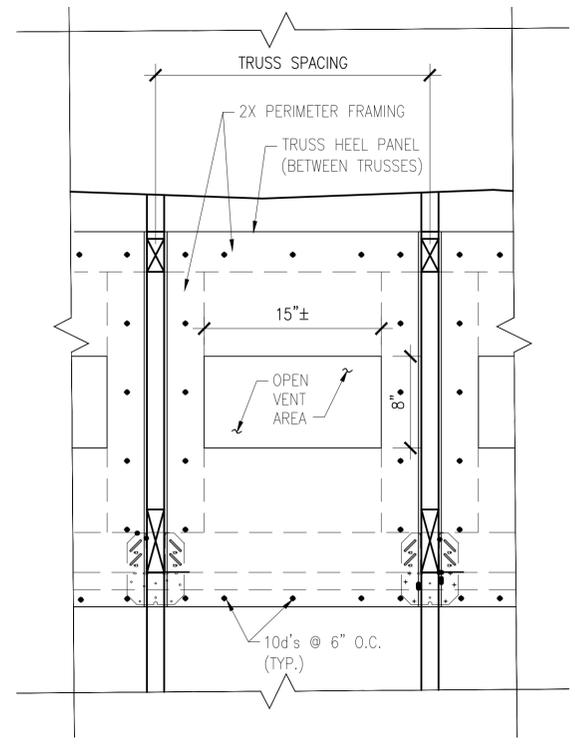
UNCLASSIFIED//FOR OFFICIAL USE ONLY

FILE NAME: P:\VA\Wallops Island\Housing\WelcomeCenter\B_Design\Drawings\Sheet_Details\Drawings\1366574-503_SECTION_DETAILS.dwg LAYOUT NAME: S-503 PLOTTED: Monday, May 09, 2016 - 11:55am USER: vernon.anderson2

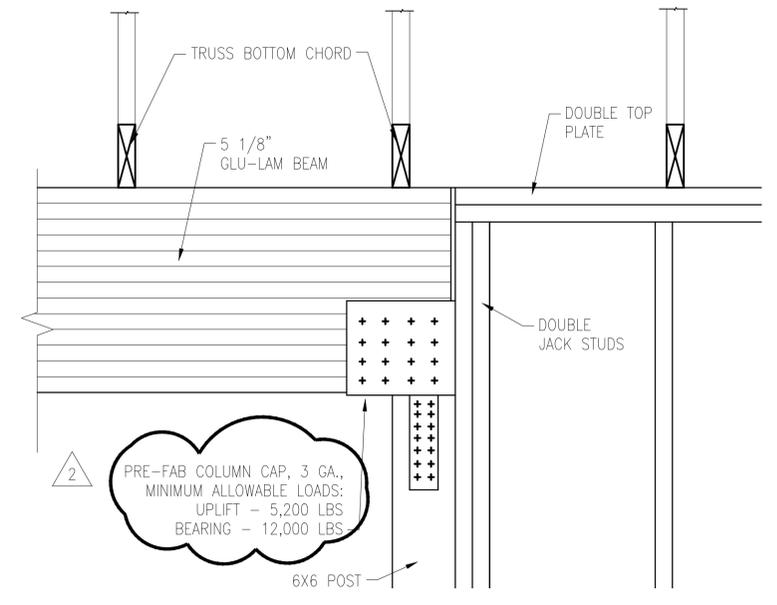
UNCLASSIFIED//FOR OFFICIAL USE ONLY



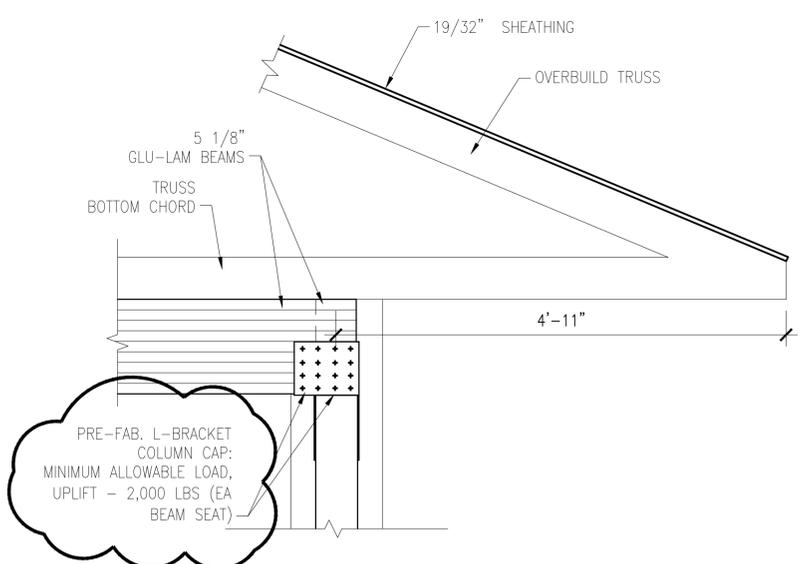
S1 DETAIL
SCALE: 1 1/2"=1'0" S-101



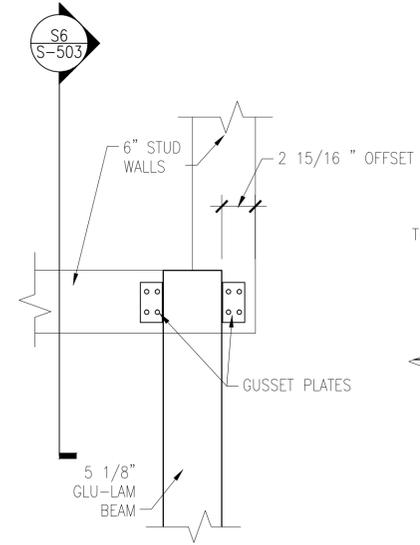
S5 DETAIL
SCALE: 1 1/2"=1'0" S-503



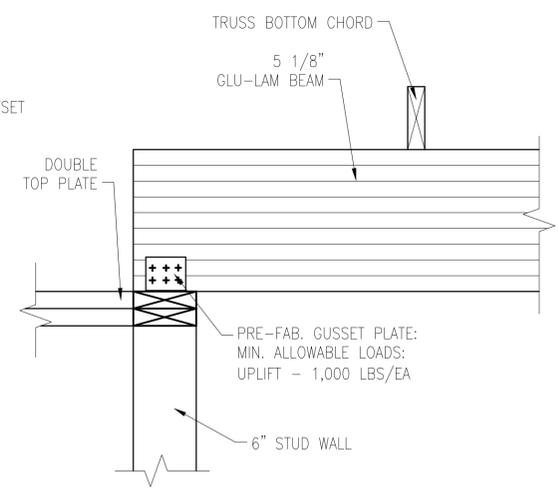
S2 DETAIL
SCALE: 1 1/2"=1'0" S-102



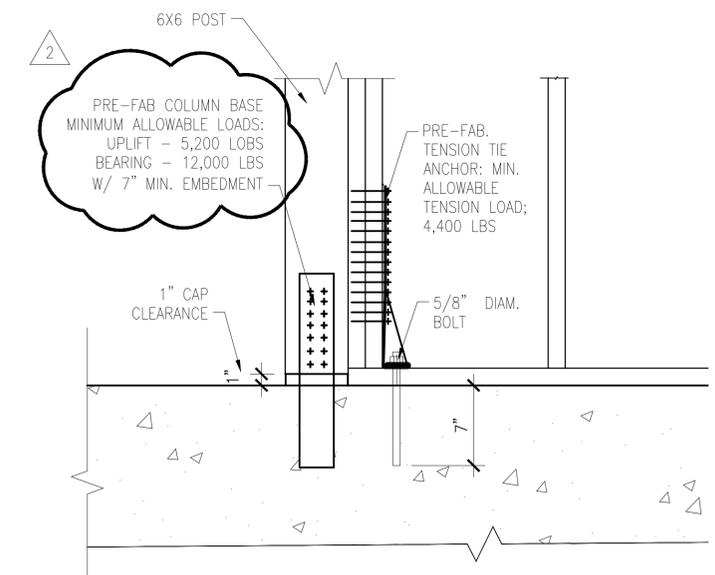
S3 DETAIL
SCALE: 1"=1'0" S-102



S4 DETAIL
SCALE: 1 1/2"=1'0" S-102



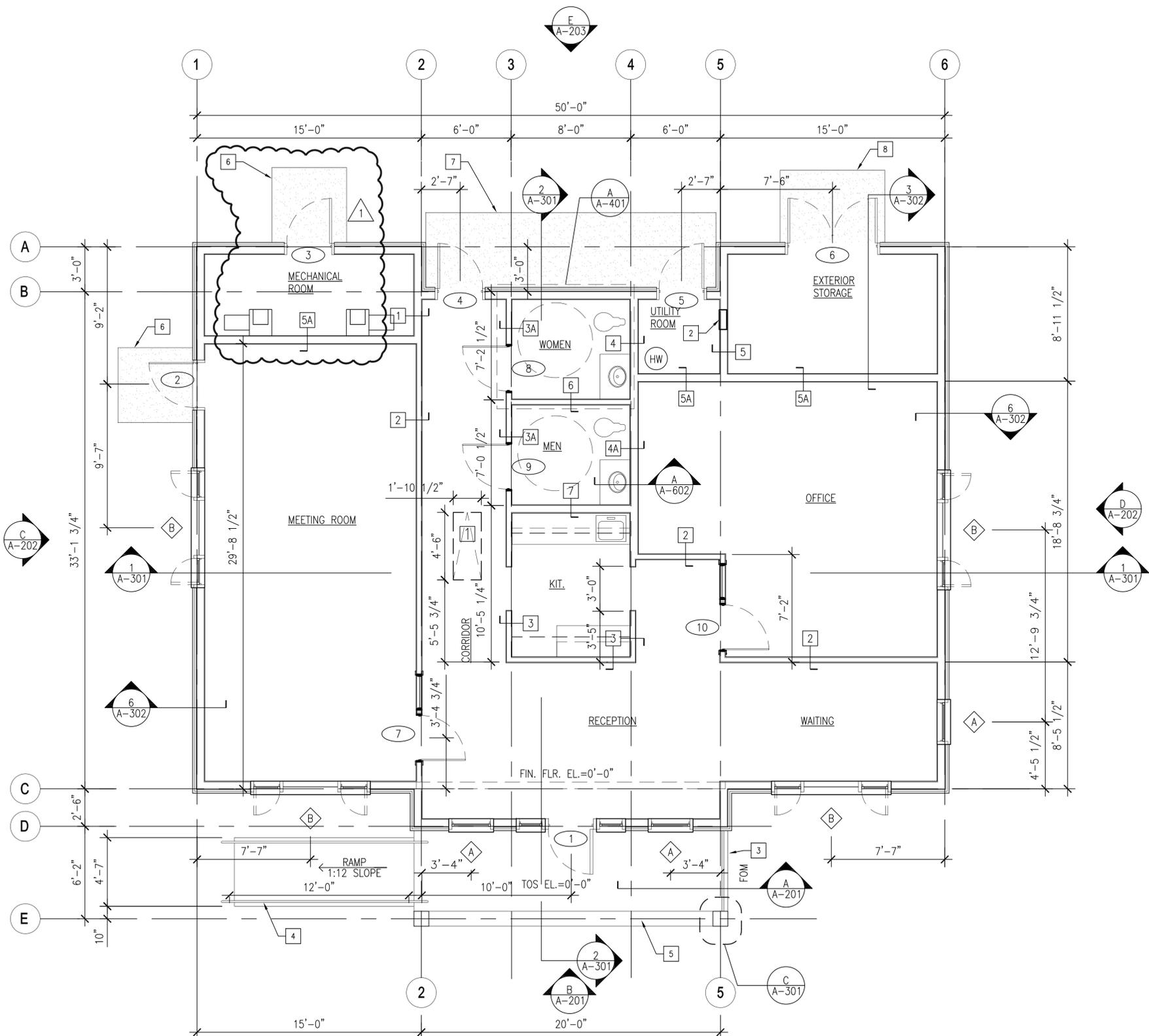
S6 DETAIL
SCALE: 1 1/2"=1'0" S-503



S7 DETAIL
SCALE: 1 1/2"=1'0" S-101

NOTE: THIS ENTIRE SHEET HAS BEEN REVISED.

APPROVED	DATE	APPR
FOR COMMANDER NAVFAC	05/11/16	
ACTIVITY	GENERAL REVISIONS	DATE
HERM RAWLINGS	2	01/21/16
SATISFACTORY TO	1	
DES: VAA	GENERAL DESCRIPTION	
FM/DM: JTL/APK		
BRANCH MANAGER		
CHEF ENG/ARCH: RLW		
FIRE PROTECTION		
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND	
HAMPTON ROADS IPT	NORFOLK, VA	
	SURFACE COMBAT SYSTEM CENTER	
	WALLOPS ISLAND, VA	
	HOUSING WELCOME CENTER	
	DETAILS	
SCALE: AS NOTED	PROJECT NO.: 1366574	
CONSTR. CONTR. NO.	####-#-#-###	
NAVFAC DRAWING NO.	12708204	
SHEET 32 OF 70	S-503	
DRAWN/REVISED: 10 MARCH 2009		



FLOOR PLAN
 SCALE: 1/4" = 1'-0"
 PLAN NORTH

GENERAL SHEET NOTES

- REFER TO SHEET A-601 FOR DOOR SCHEDULE AND DETAILS.
- REFER TO SHEET A-602 FOR WINDOW SCHEDULE AND DETAILS.
- REFER TO SHEET A-303 FOR INTERIOR PARTITION TYPES.
- ALIGN FACE OF STUD WITH GRID.
- UNLESS OTHERWISE NOTED, DIMENSIONS ARE TO FACE OF STUD AND CENTERLINE OF DOORS AND WINDOWS.

NEW WORK KEYNOTES

- ATTIC ACCESS HATCH WITH PULL DOWN STAIR.
- ELECTRICAL PANEL BOX.
- GUARDRAIL.
- HANDRAIL.
- PORCH STEPS.
- 5' X 5' CONCRETE STOOP.
- 19'-5" X 5' CONCRETE STOOP.
- 7' X 5' CONCRETE STOOP.

DATE	DESCRIPTION	BY	APPR
5/11/16	GENERAL REVISIONS		



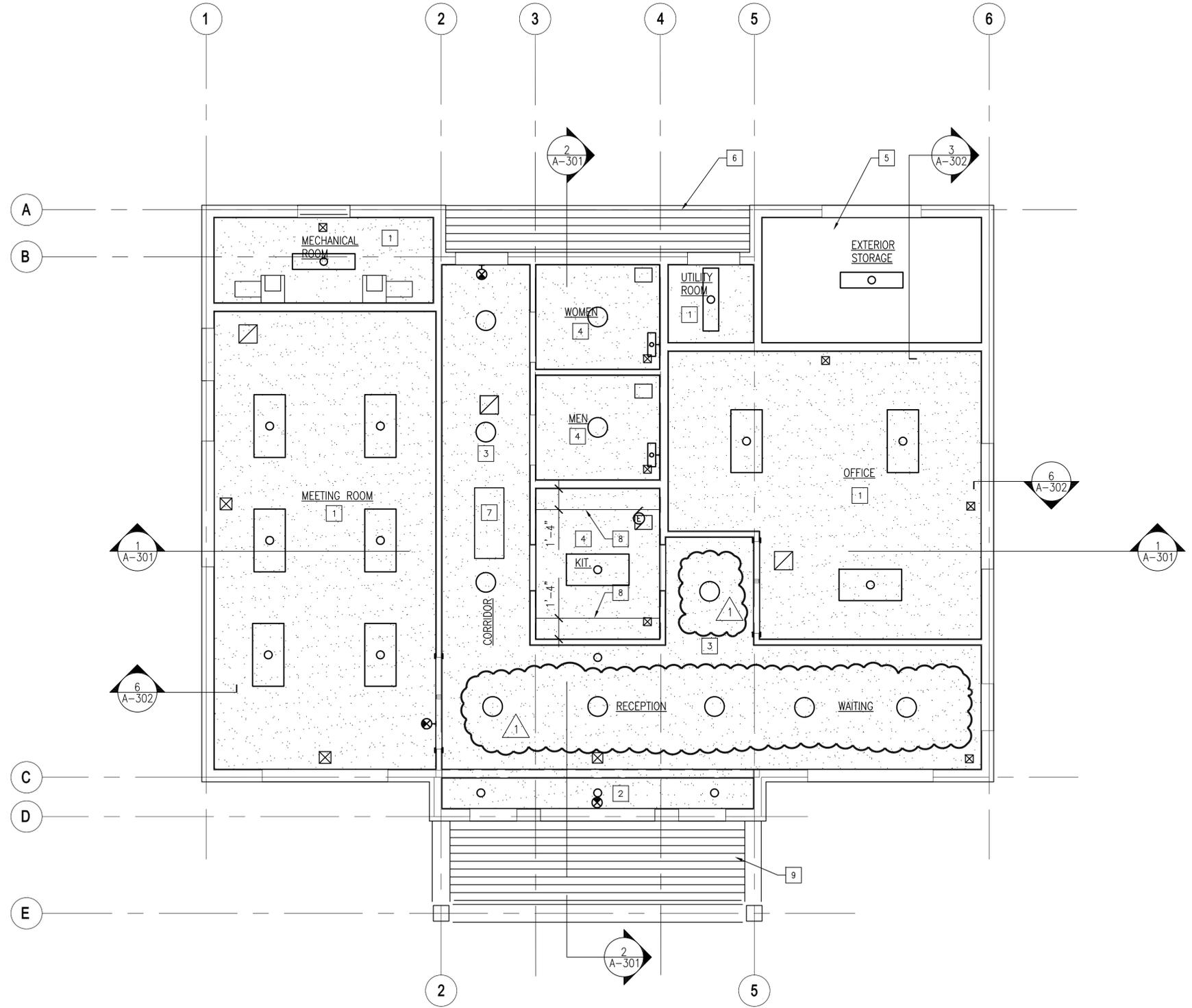
APPROVED	A/E INFO
FOR COMMANDER NAVFAC	
ACTIVITY	
HERM RAWLINGS	
SATISFACTORY TO DATE	MM/DD/YY
DES DAY	DRW AK
CHK	TLD
BRANCH MANAGER	
CHIEF ENG/ARCH	RLW
FIRE PROTECTION	DPS

DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND
HAMPSON ROADS IPT	NAVAL FACILITIES ENGINEERING COMMAND
SURFACE COMBAT SYSTEM CENTER	NORFOLK VA
HOUSING WELCOME CENTER	WALLOPS ISLAND, VA
	FLOOR PLAN

GRAPHIC SCALE



SCALE:	AS NOTED
PROJECT NO.:	1366574
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12708206
SHEET	34 OF 70
A-101	



REFELCTED CEILING PLAN
 SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

NEW WORK KEYNOTES

1. 5/8" GYPSUM BOARD CEILING AT 10'-0" AFF.
2. 5/8" GYPSUM BOARD SOFFIT AT 9'-5" AFF. REFER TO DETAIL A/A-301.
3. 5/8" GYPSUM BOARD SOFFIT AT 9'-0" AFF. REFER TO DETAIL A/A-301.
4. 5/8" GYPSUM BOARD CEILING AT 8'-0" AFF.
5. 1/2" PLYWOOD OR OSB CEILING.
6. CEMENTITIOUS SOFFIT/CEILING AT 8'-6" AFF.
7. ATTIC ACCESS HATCH. FRAMING AS REQUIRED.
8. 5/8" GYPSUM BOARD SOFFIT ABOVE WALL HUNG CABINETS. FRAMING AS REQUIRED.
9. CEMENTITIOUS SOFFIT/CEILING AT 10'-0" AFF.



PLAN NORTH

GRAPHIC SCALE

1/4"=1'-0" 0' 2' 4' 8'

DATE	DESCRIPTION	BY	APPR
5/11/16	GENERAL REVISIONS		

APPROVED
 PER COMMANDER NAVFAC
 ACTIVITY
HERM RAWLINGS
 SATISFACTORY TO DATE MM/DD/YY
 DES DAY DRW AK CHK TLD
 PM/DM JTL/APK
 BRANCH MANAGER
 CHIEF ENG/ARCH RLV
 FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 HAMPSON ROADS IPT
 SURFACE COMBAT SYSTEM CENTER
 NORFOLK, VA
 WALLEPS ISLAND, VA

HOUSING WELCOME CENTER
 REFLECTED CEILING PLAN

SCALE: AS NOTED
 EPROJECT NO.: 1366574
 CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12708207
 SHEET 35 OF 70

A-102

DRAWFORM REVISION: 10 MARCH 2009

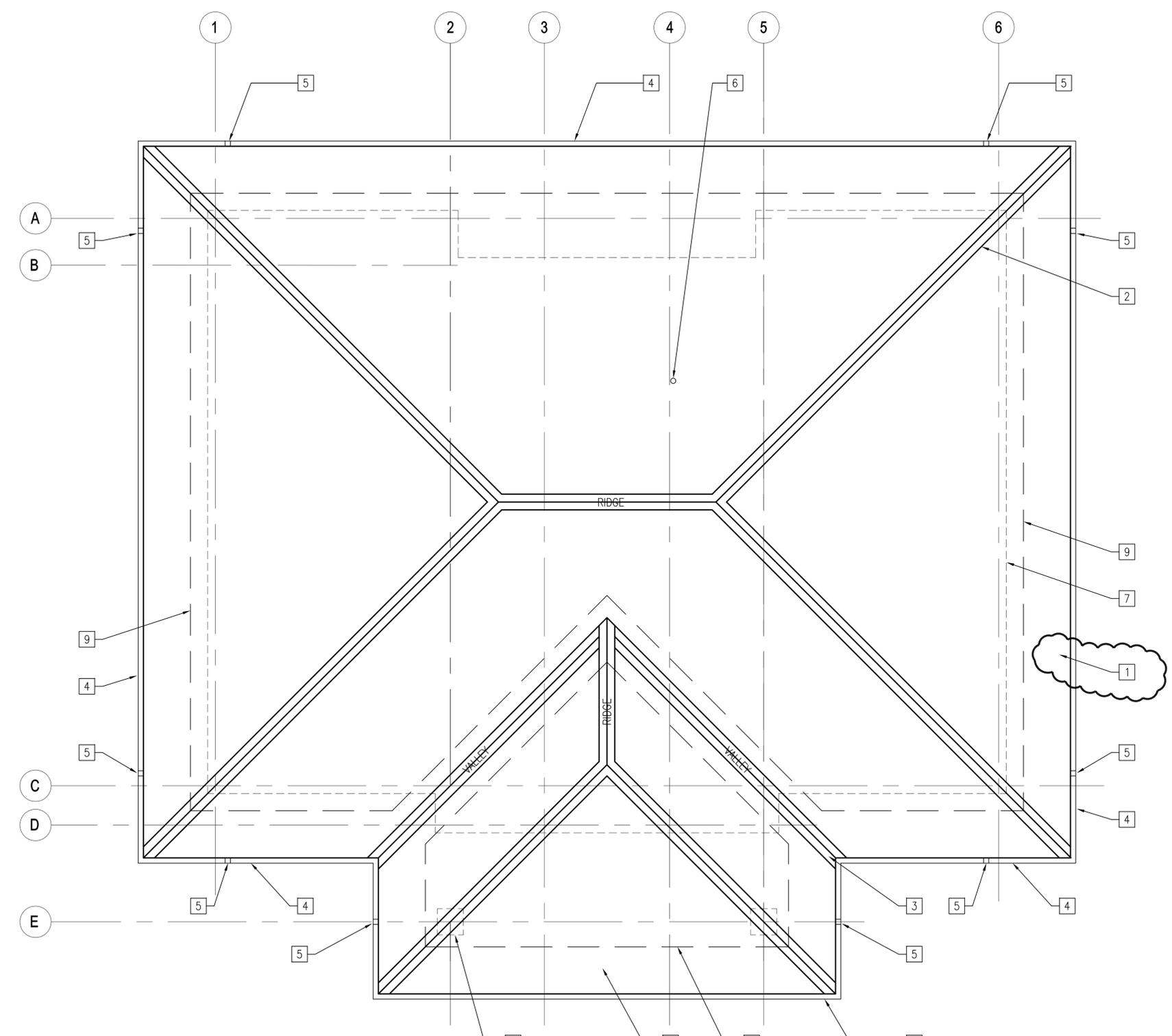
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FILE NAME: P:\VA\Wallops Island\Wallops Island\Wallops Center\Design\Drawings\Sheet\B_Housing\WelcomeCenter\B_Housing\WelcomeCenter.dwg LAYOUT NAME: A-103 PLOTTED: Monday, May 09, 2016 - 8:56am USER: allen.eline

5 UNCLASSIFIED//FOR OFFICIAL USE ONLY

5 UNCLASSIFIED//FOR OFFICIAL USE ONLY



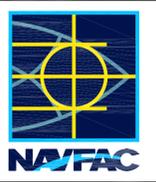
ROOF PLAN
SCALE: 1/4" = 1'-0"

GENERAL SHEET NOTES

- REFER TO SHEET A-203 FOR EXTERIOR COLOR LEGEND.

NEW WORK KEYNOTES

- 30 YEAR ARCHITECTURAL SHINGLES OVER FELT UNDERLAYMENT.
- RIDGE CAP. TYPICAL UNLESS OTHERWISE NOTED.
- VALLEY FLASHING.
- ALUMINUM GUTTER.
- ALUMINUM DOWNSPOUT.
- PLUMBING VENT. FLASH PER MANUFACTURER'S DETAIL.
- BUILDING OUTLINE BELOW.
- COLUMN BELOW.
- PROVIDE ICE AND WATER SHIELD A ROOF PERIMETER AND VALLEYS. EXTEND 3' FROM ROOF EDGE.



APPROVED	A/E INFO
FIR COMMANDER NAVFAC	
ACTIVITY	
HERM RAWLINGS	
SATISFACTORY TO	DATE
DES DAY DRW AK CHK TLD	
BRANCH MANAGER	
JTL/APK	
CHIEF ENG/ARCH	
RLW	
FIRE PROTECTION	
DPS	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPSON ROADS IPT
SURFACE COMBAT SYSTEM CENTER
WALLOPS ISLAND, VA

NAVAL FACILITIES ENGINEERING COMMAND
WALLOPS ISLAND, VA
HOUSING WELCOME CENTER
ROOF PLAN

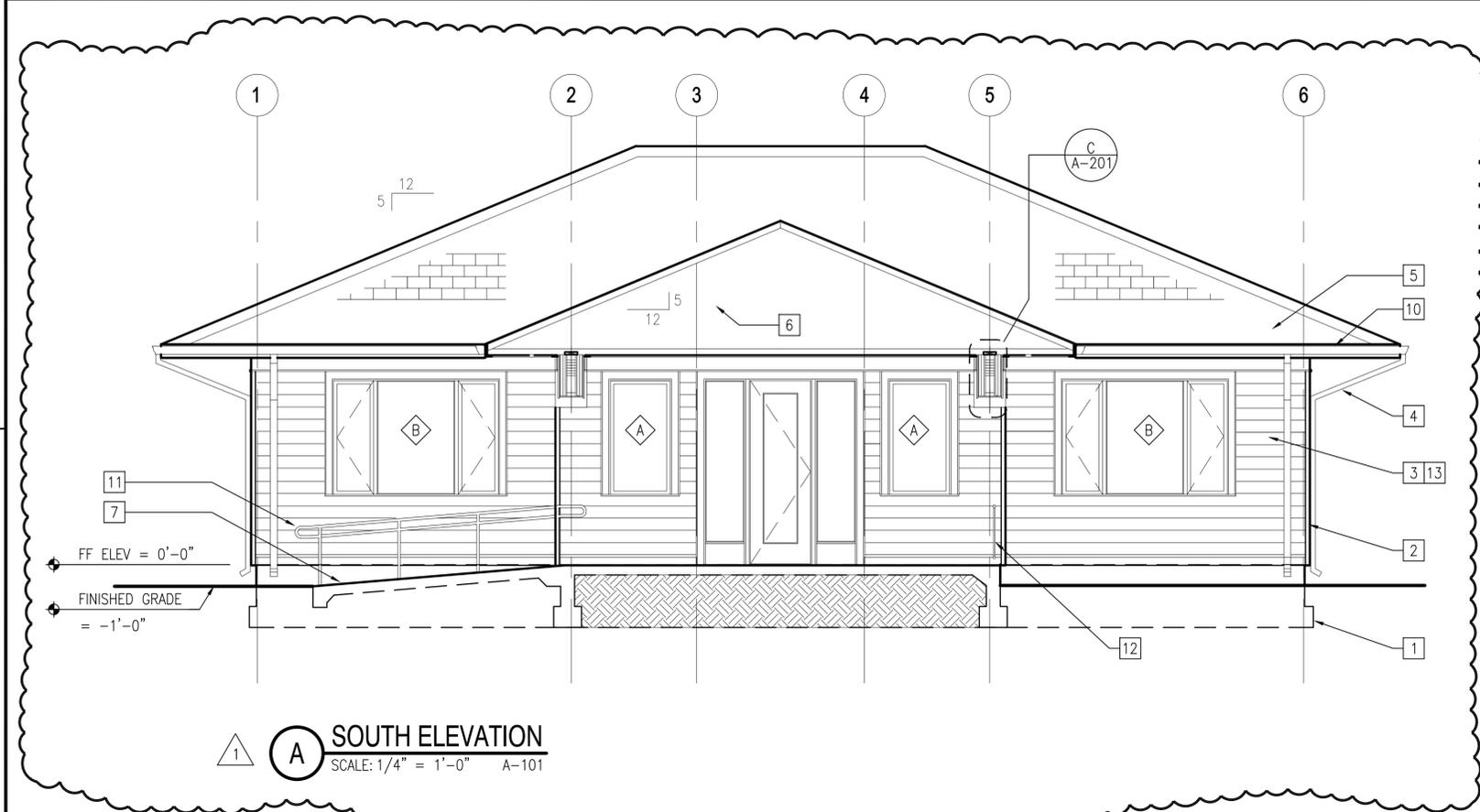
SCALE: 1/4"=1'-0"
PROJECT NO.: 1366574
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.: 12708208
SHEET 36 OF 70
A-103
DRAWFORM REVISION: 10 MARCH 2009

GRAPHIC SCALE

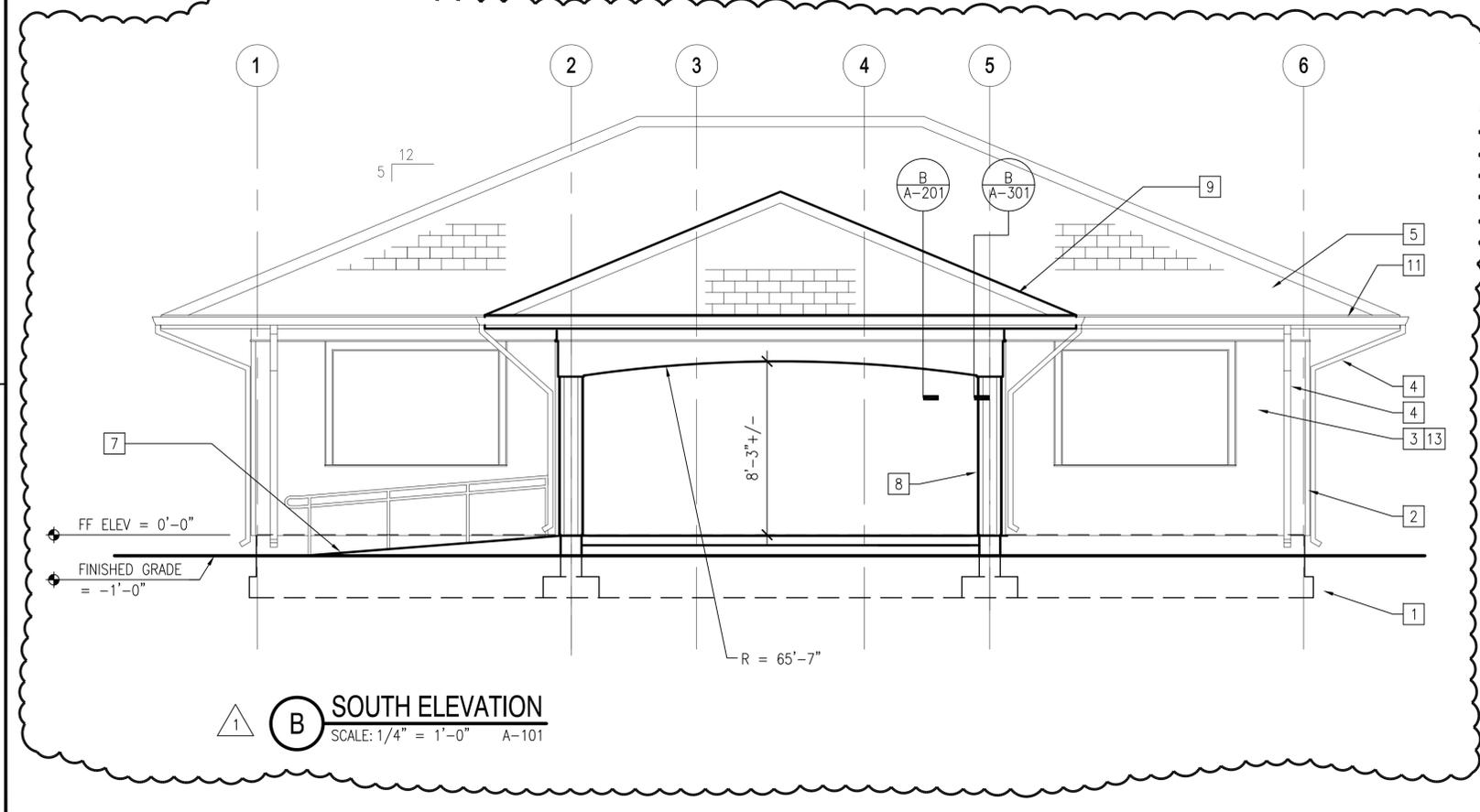


5 UNCLASSIFIED//FOR OFFICIAL USE ONLY

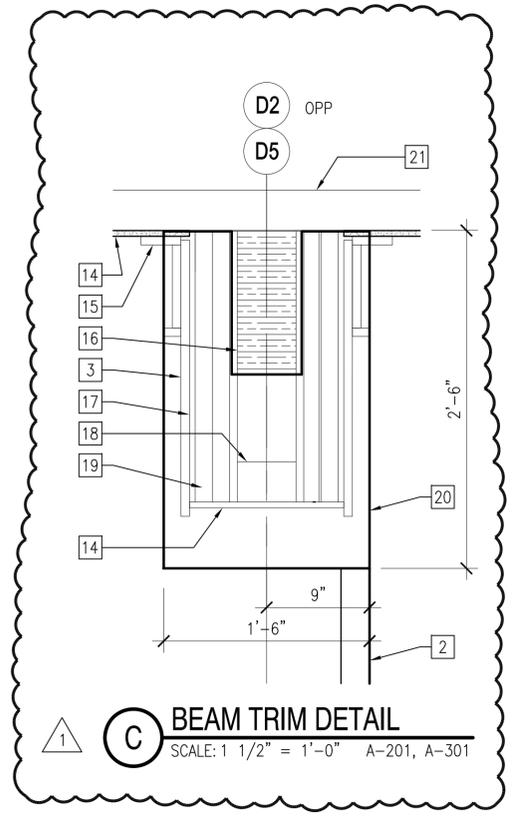
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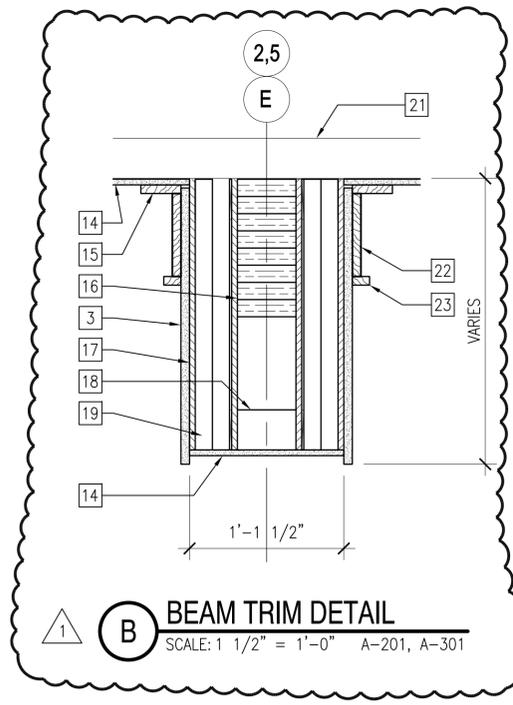
A SOUTH ELEVATION
SCALE: 1/4" = 1'-0" A-101



B SOUTH ELEVATION
SCALE: 1/4" = 1'-0" A-101



C BEAM TRIM DETAIL
SCALE: 1 1/2" = 1'-0" A-201, A-301



B BEAM TRIM DETAIL
SCALE: 1 1/2" = 1'-0" A-201, A-301

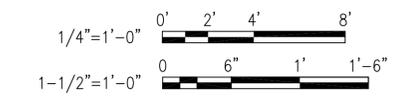
GENERAL SHEET NOTES

1. REFER TO SHEET A-203 FOR EXTERIOR COLOR LEGEND.
2. PROVIDE VINYL SIDING, J-CHANNELS AND ASSOCIATED ACCESSORIES FOR BASE BID.
3. CEMENTITIOUS SIDING BID OPTION INCLUDES SOFFIT, FASCIA AND ASSOCIATED TRIM.
4. PROVIDE CEDAR TRIM AS INDICATED FOR EITHER VINYL SIDING (BASE BID) OR CEMENTITIOUS SIDING (BID OPTION).

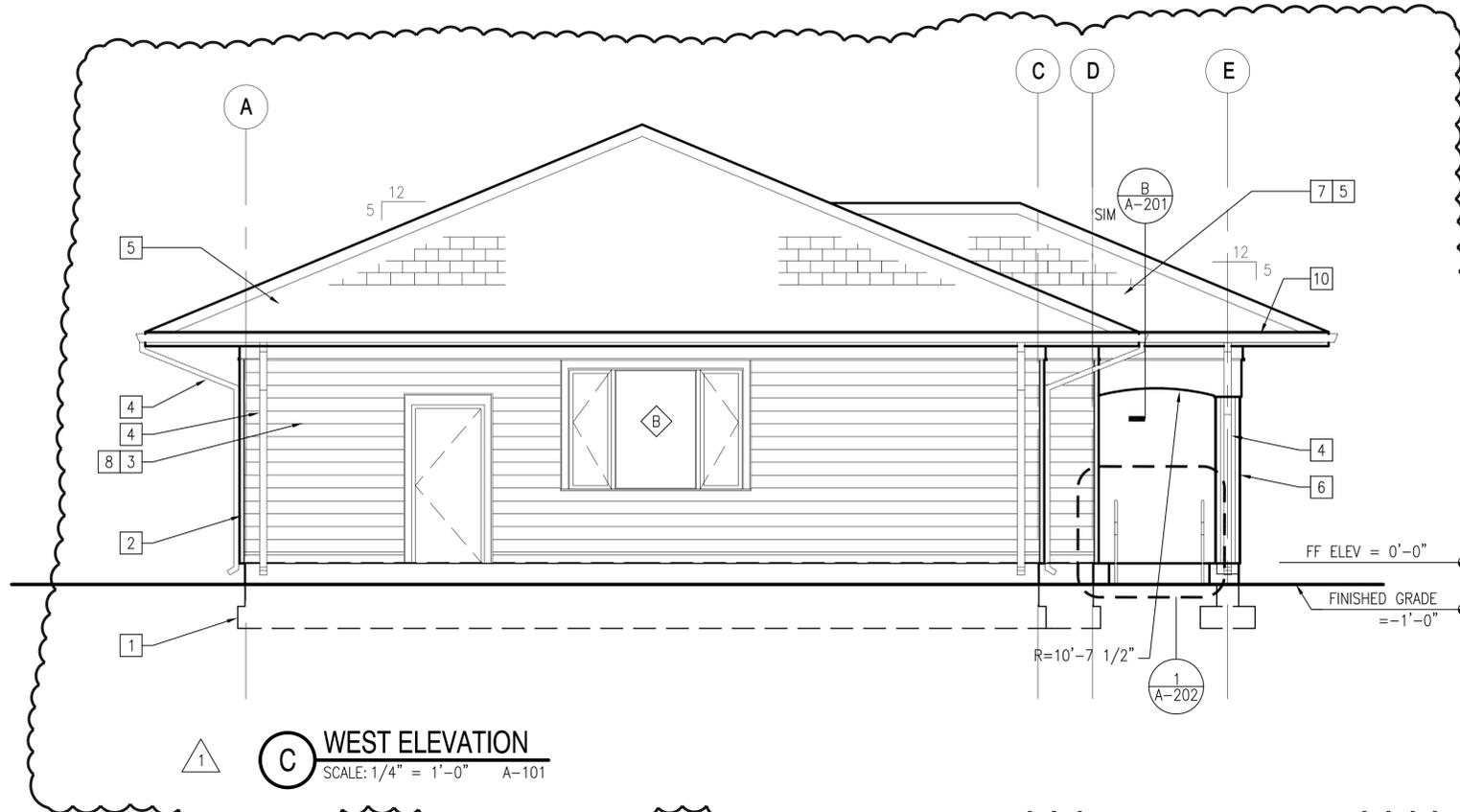
NEW WORK KEYNOTES

1. OUTLINE OF FOUNDATION. REFER TO S-101.
2. CORNER TRIM BOARD TO MATCH SIDING MATERIAL.
3. CEMENTITIOUS SIDING (BID OPTION).
4. ALUMINUM DOWNSPOUT.
5. 30 YEAR ARCHITECTURAL SHINGLES OVER FELT UNDERLAYMENT.
6. SECTION THROUGH CANOPY, FRAMING NOT SHOWN FOR CLARITY.
7. HANDICAP ACCESS RAMP. SLOPE 1:12. REFER TO 1/A-203.
8. COLUMN. REFER TO DETAIL D/A-301.
9. ENTRANCE CANOPY.
10. ALUMINUM GUTTER. REFER TO 1/A-302.
11. RAMP HANDRAIL. REFER TO 1/A-203.
12. GUARDRAIL.
13. VINYL SIDING.
14. CEMENTITIOUS SOFFIT (BID OPTION).
15. 3/4" X 3 1/2" CEDAR TRIM.
16. GLUE LAMINATED BEAM. REFER TO NOTE 8 ON S-102.
17. 1/2" PLYWOOD.
18. 2 X 4 SPACER AT 16" O.C.
19. 2 X 4 BLOCKING AT 16" O.C., SHIM AS REQUIRED TO MAINTAIN PLUMB CONDITION.
20. 1 1/2" THICK DECORATIVE CEDAR TRIM AT WALL, NOTCH OUT FOR GLUE LAMINATED BEAM. BEAM ENCLOSURE AND NOTED TRIM PIECES TO DIE INTO DECORATIVE CEDAR TRIM. ALIGN WITH CEMENTITIOUS CORNER TRIM BOARD.
21. BOTTOM CHORD OF TRUSS.
22. 3/4" X 7 1/4" CEDAR TRIM.
23. 3/4" X 1 1/2" CEDAR TRIM.

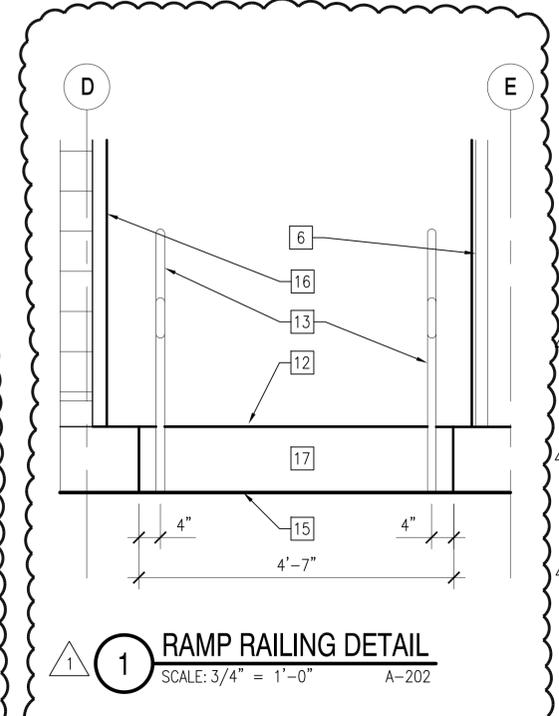
GRAPHIC SCALE



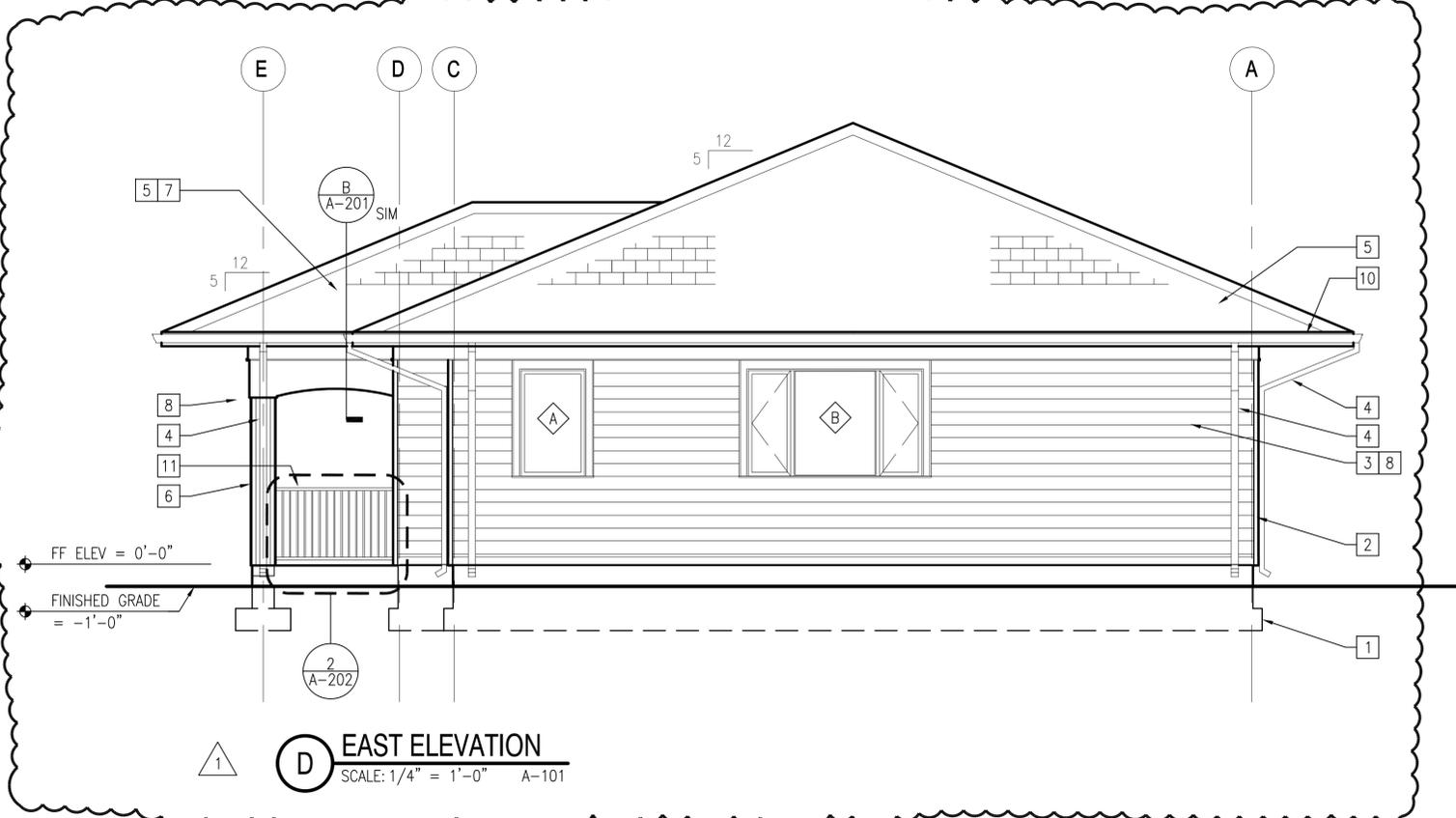
DATE	5/11/16
DESCRIPTION	GENERAL REVISIONS
NO.	1
BY	
CHKD	
APPR	
APPROVED: _____ PER COMMANDER NAVFAC	
ACTIVITY:	
HERM RAWLINGS	
SATISFACTORY TO: _____ DATE: MM/DD/YY	
DES	DAY
DRW	AK
CHK	TLD
FM/DM	JTL/APK
BRANCH MANAGER:	
CHIEF ENG/ARCH: RLV	
FIRE PROTECTION: DPS	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND HAMPSON ROADS IPT SURFACE COMBAT SYSTEM CENTER NORFOLK, VA WALLEPS ISLAND, VA	
HOUSING WELCOME CENTER BUILDING ELEVATIONS	
SCALE: AS NOTED	
PROJECT NO.: 1366574	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12708209	
SHEET	37 OF 70
A-201	
DRAWFORM REVISION: 10 MARCH 2009	



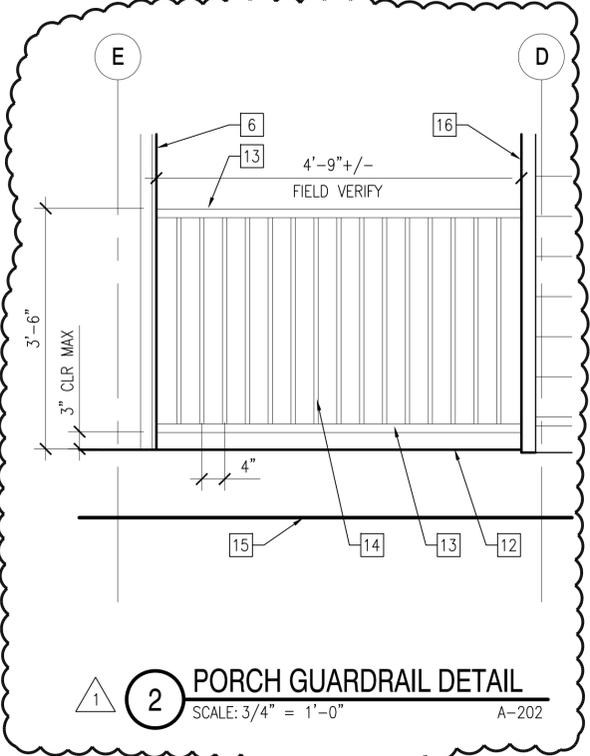
C WEST ELEVATION
SCALE: 1/4" = 1'-0" A-101



1 RAMP RAILING DETAIL
SCALE: 3/4" = 1'-0" A-202



D EAST ELEVATION
SCALE: 1/4" = 1'-0" A-101



2 PORCH GUARDRAIL DETAIL
SCALE: 3/4" = 1'-0" A-202

GENERAL SHEET NOTES

1. REFER TO SHEET A-203 FOR EXTERIOR COLOR LEGEND.
2. PROVIDE VINYL SIDING, J-CHANNELS AND ASSOCIATED ACCESSORIES FOR BASE BID.
3. CEMENTITIOUS SIDING BID OPTION INCLUDES SOFFIT, FASCIA AND ASSOCIATED TRIM.
4. PROVIDE CEDAR TRIM AS INDICATED FOR EITHER VINYL SIDING (BASE BID) OR CEMENTITIOUS SIDING (BID OPTION).

NEW WORK KEYNOTES

1. OUTLINE OF FOUNDATION. REFER TO S-101.
2. CORNER TRIM BOARD TO MATCH SIDING MATERIAL.
3. CEMENTITIOUS SIDING (BID OPTION).
4. ALUMINUM DOWNSPOUT.
5. 30 YEAR ARCHITECTURAL SHINGLES OVER FELT UNDERLAYMENT.
6. COLUMN.
7. ENTRANCE CANOPY.
8. VINYL SIDING.
9. NOT USED.
10. ALUMINUM GUTTER, REFER TO 1/A-302.
11. GUARDRAIL. REFER TO 2/A-202.
12. PORCH SURFACE. (0'-1/2" FF)
13. 1 1/2" DIA PIPE (NOM.).
14. 3/4" DIA PICKETS.
15. FINISHED GRADE.
16. OUTLINE OF BUILDING.
17. RAMP SURFACE.

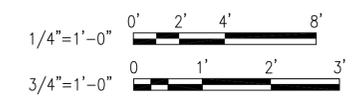
REV	DESCRIPTION	DATE
1	GENERAL REVISIONS	5/11/16



APPROVED	A/E INFO
FOR COMMANDER NAVFAC	
ACTIVITY	
HERM RAWLINGS	
SATISFACTORY TO DATE	MM/DD/YY
DES DAY	DRW AK
CHK TLD	
BRANCH MANAGER	
CHIEF ENG/ARCH	RLW
FIRE PROTECTION	DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING COMMAND
SURFACE COMBAT SYSTEM CENTER
HAMPTON ROADS IPT
NORFOLK, VA
WALLOPS ISLAND, VA
HOUSING WELCOME CENTER
BUILDING ELEVATIONS

GRAPHIC SCALE

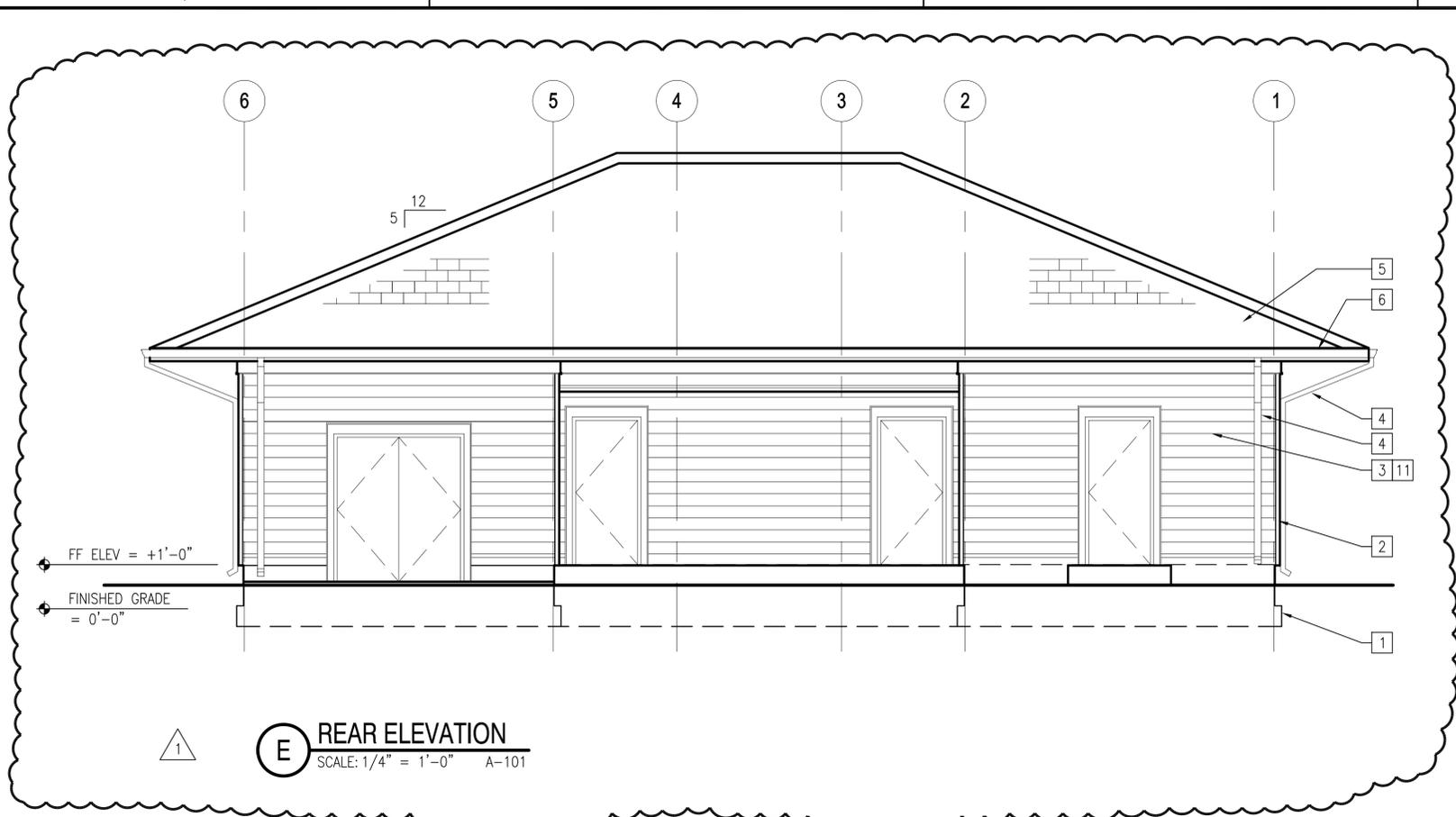


SCALE:	AS NOTED
PROJECT NO.:	1366574
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12708210
SHEET	38 OF 70
A-202	

FILE NAME: P:\VA\Wallops Island\Wallops Island\1366574_2016_1366574_008_Housing>WelcomeCenter\B_Design\Drawings\Sheet\1366574-4-202.dwg LAYOUT NAME: A-202 PLOTTED: Friday, June 03, 2016 - 5:59pm USER: allen.wille

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GENERAL SHEET NOTES

1. CEMENTITIOUS SIDING BID OPTION INCLUDES SOFFIT AND FASCIA.
2. PROVIDE VINYL SIDING, J-CHANNELS AND ASSOCIATED ACCESSORIES FOR BASE BID.
3. CEMENTITIOUS SIDING BID OPTION INCLUDES SOFFIT, FASCIA AND ASSOCIATED TRIM.
4. PROVIDE CEDAR TRIM AS INDICATED FOR EITHER VINYL SIDING (BASE BID) OR CEMENTITIOUS SIDING (BID OPTION).

NEW WORK KEYNOTES

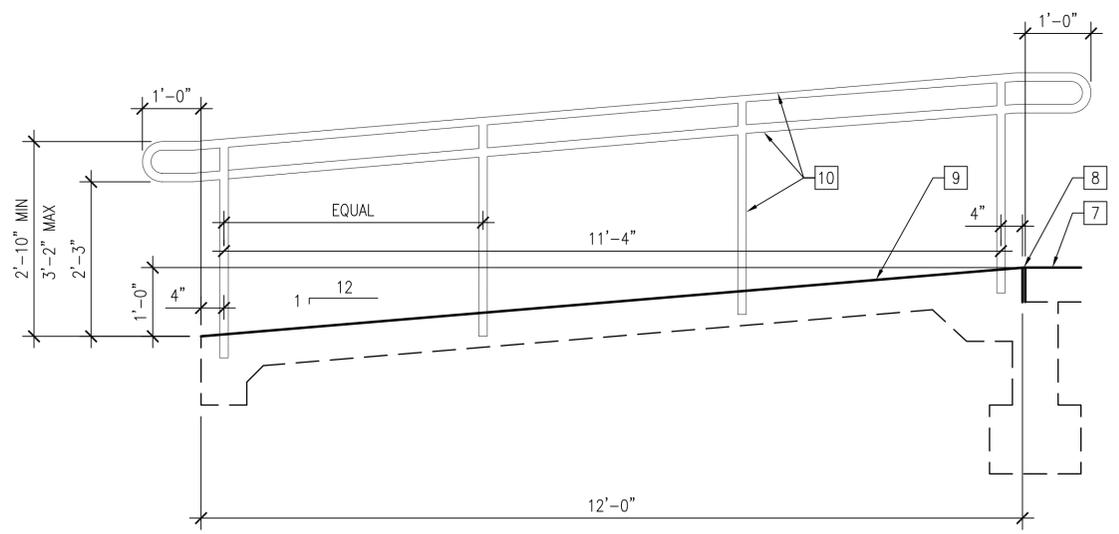
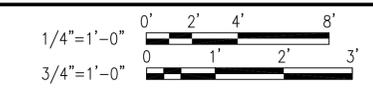
1. OUTLINE OF FOUNDATION. REFER TO S-101.
2. CORNER TRIM BOARD TO MATCH SIDING MATERIAL.
3. CEMENTITIOUS SIDING (BID OPTION).
4. ALUMINUM DOWNSPOUT.
5. 30 YEAR ARCHITECTURAL SHINGLES OVER FELT UNDERLAYMENT.
6. ALUMINUM GUTTER. REFER TO 1/A-302.
7. PORCH SLAB. (0'-1/2" LOWER THAN FF)
8. 1/2" EXPANSION JOINT FILLER MATERIAL.
9. RAMP SLAB. REFER TO KEYNOTE 2 ON S-101.
10. 1 1/2" DIA PIPE (NOM.) HANDRAIL AND POSTS. EMBED POSTS INTO SLAB.
11. VINYL SIDING.

COLOR LEGEND

- WINDOWS - WHITE
- GUTTERS AND DOWNSPOUTS - WHITE
- SIDING - CEDAR EMBOSSED VINYL SIDING SIMILAR IN COLOR TO; JAMES HARDIE, WOODSTOCK BROWN (JH30-30)
- ROOFING - TAMKO HERITAGE PREMIUM, AGED WOOD
- CEDAR TRIM - NATURAL (UNFINISHED)

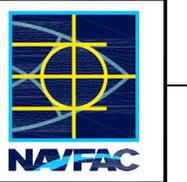
NOTE:
FINISHES INDICATED ARE THE APPROVED BASIS OF DESIGN TO CONVEY COLOR, PATTERN, TEXTURE, AND SALIENT CHARACTERISTICS ONLY. THE LISTING OF MANUFACTURER INFORMATION IS NOT INTENDED TO LIMIT THE SELECTION OF PRODUCTS PROVIDED BY OTHER MANUFACTURERS. PRODUCT SUBSTITUTIONS MEETING THESE CRITERIA WILL BE CONSIDERED AND MUST BE REVIEWED BY THE ARCHITECT OF RECORD AND APPROVED BY THE CONTRACTING OFFICER.

GRAPHIC SCALE



1 RAMP HANDRAIL DETAIL
SCALE: 3/4" = 1'-0" A-101

NO.	DESCRIPTION	DATE
1	GENERAL REVISIONS	5/11/16

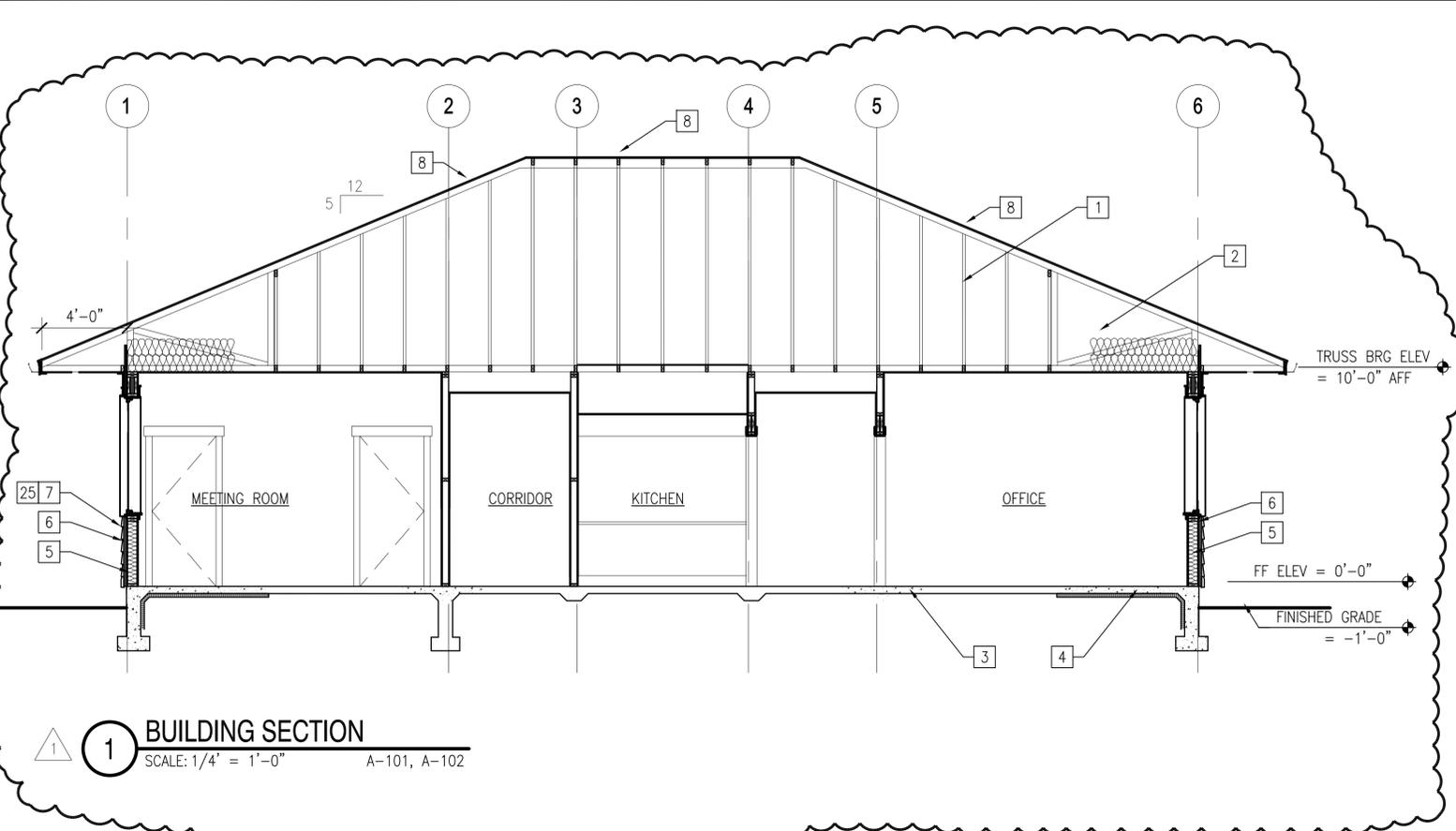


APPROVED	A/E INFO
PER COMMANDER NAVFAC	
ACTIVITY	

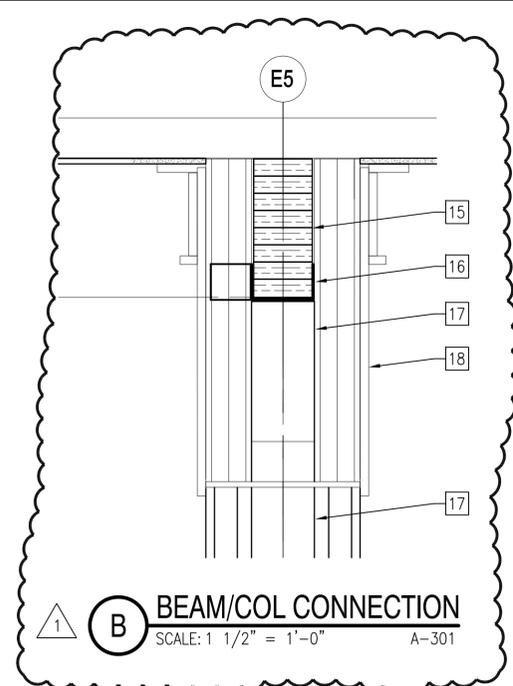
HERM RAWLINGS	
SATISFACTORY TO	DATE
DES DAY	DRW AK
CHK TLD	
BRANCH MANAGER	
CHIEF ENG/ARCH	RLW
FIRE PROTECTION	DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPSON ROADS IPT
NORFOLK VA
SURFACE COMBAT SYSTEM CENTER
WALLOPS ISLAND, VA
HOUSING WELCOME CENTER
BUILDING ELEVATION

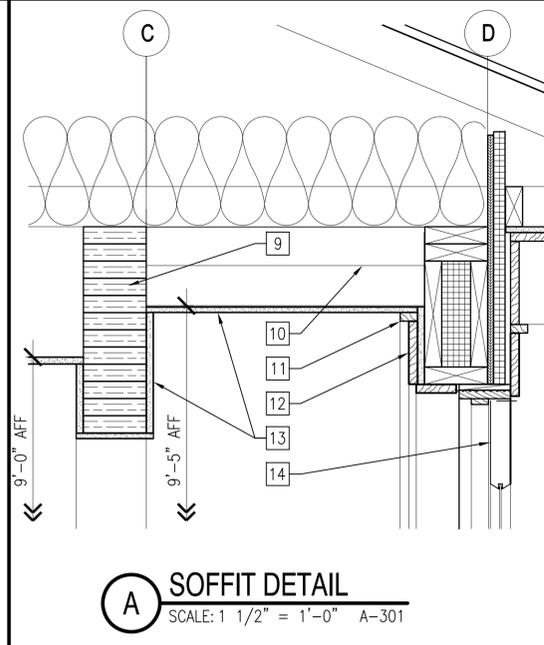
SCALE:	AS NOTED
PROJECT NO.:	1366574
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12708211
SHEET	39 OF 70
A-203	



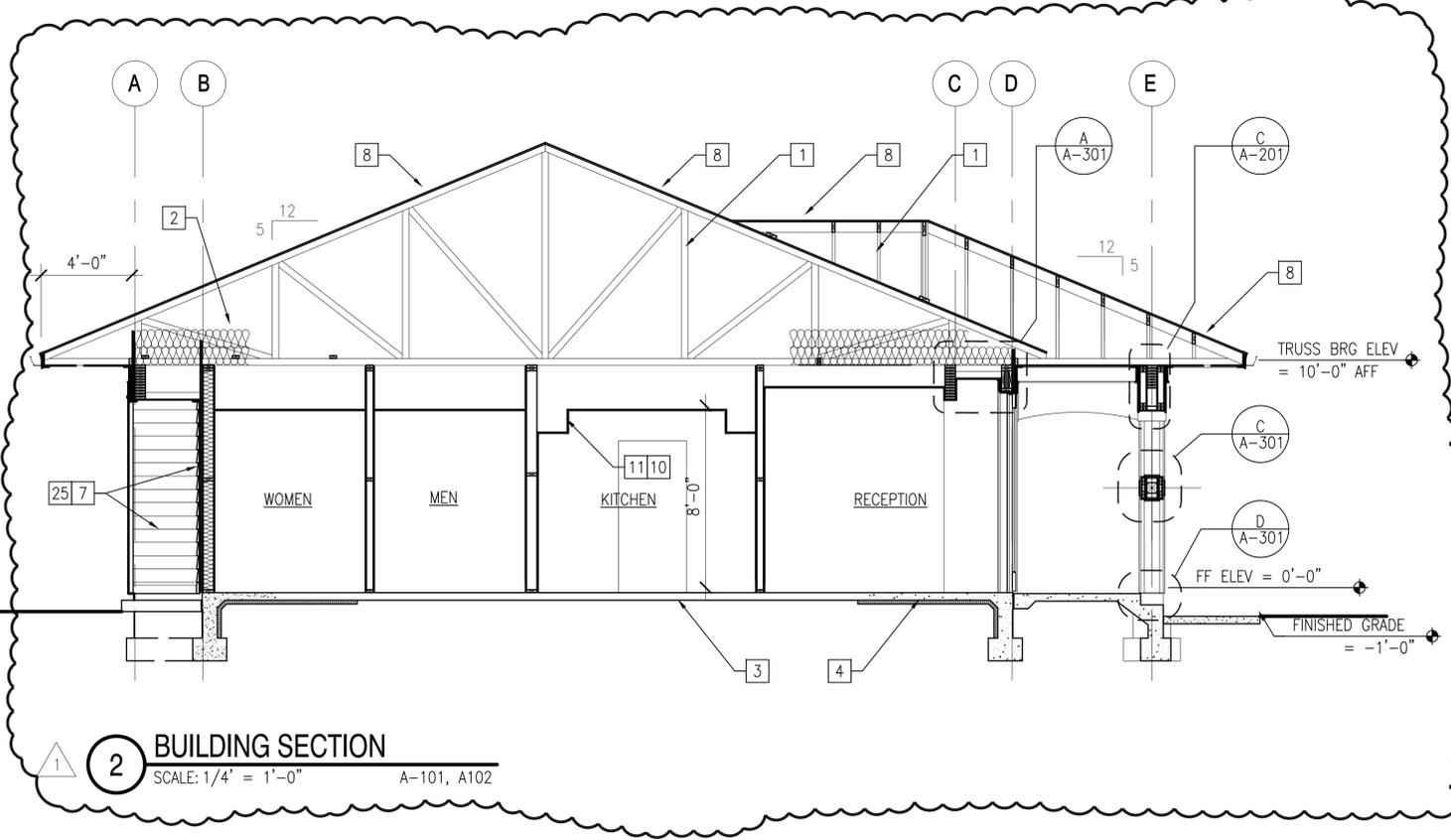
1 BUILDING SECTION
SCALE: 1/4" = 1'-0" A-101, A-102



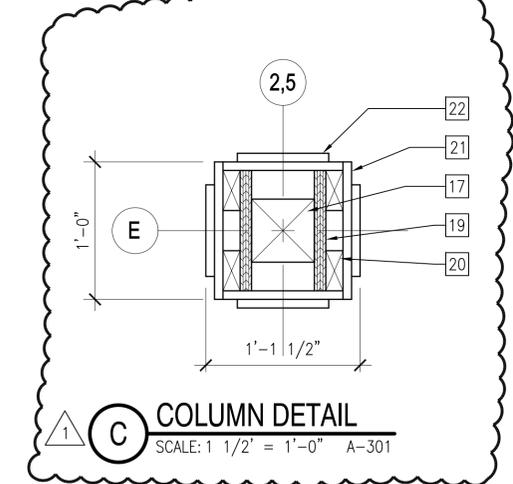
B BEAM/COL CONNECTION
SCALE: 1 1/2" = 1'-0" A-301



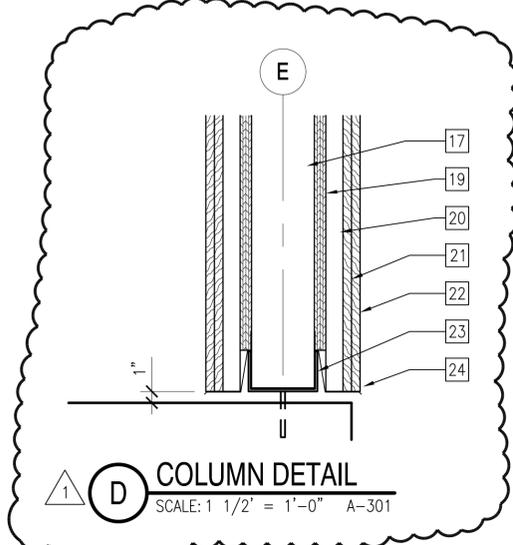
A SOFFIT DETAIL
SCALE: 1 1/2" = 1'-0" A-301



2 BUILDING SECTION
SCALE: 1/4" = 1'-0" A-101, A102



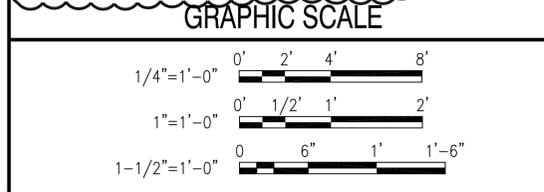
C COLUMN DETAIL
SCALE: 1 1/2" = 1'-0" A-301



D COLUMN DETAIL
SCALE: 1 1/2" = 1'-0" A-301

NEW WORK KEYNOTES

- TRUSS FRAMING. REFER TO S-102.
- R-38 BATT INSULATION.
- CONCRETE FLOOR SLAB. REFER TO S-101.
- R-5 RIGID INSULATION CONTINUOUS UNDER SLAB.
- R-21 BATT INSULATION.
- 1" RIGID INSULATION IN WALL CAVITY.
- CEMENTITIOUS SIDING (BID OPTION).
- PLYWOOD SHEATHING. REFER TO NOTE 4 ON S-002.
- GLUE LAMINATED BEAM. REFER TO NOTE 7 ON S-102.
- SOFFIT FRAMING AS REQUIRED.
- 3/4" X 2 1/2" MDO TRIM.
- 3/4" X 5 1/2" MDO TRIM.
- 5/8" GYPSUM WALLBOARD.
- ENTRY DOOR. REFER TO DOOR DETAILS ON A-601.
- GLUE LAMINATED BEAM. REFER TO NOTE 8 ON S-102.
- TWO WAY BEAM/COLUMN CONNECTOR.
- 6 X 6 TREATED WOOD POST.
- BEAM ENCLOSURE. REFER TO B/A-201 FOR TYPICAL NOTES.
- 1" PLYWOOD.
- 2 X 4 BLOCKING.
- 3/4" X 12" CEDAR TRIM.
- 3/4" X 8" CEDAR TRIM.
- GALVANIZED METAL POST BRACKET.
- CONTINUOUS TERMITE SHIELD.
- VINYL SIDING.



DATE	5/11/16
DESCRIPTION	GENERAL REVISIONS
NO.	1
BY	
APPR.	
HERM RAWLINGS Satisfactory to: _____ DATE: MM/DD/YY DES: DAY DRW: AK CHK: TLD PM/DM: JTL/APK BRANCH MANAGER: _____ CHIEF ENG/ARCH: RLW FIRE PROTECTION: DPS	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND SURFACE COMBAT SYSTEM CENTER WASHINGTON ROADS IPT NORFOLK, VA WALLEPS ISLAND, VA HOUSING WELCOME CENTER BUILDING SECTIONS	
SCALE: AS NOTED PROJECT NO.: 1366574 CONSTR. CONTR. NO.: NAVFAC DRAWING NO.: 12708212 SHEET 40 OF 70 A-301 <small>DRAWING REVISION: 10 MARCH 2009</small>	

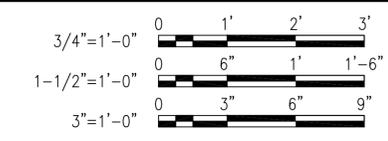
GENERAL SHEET NOTES

1. ALIGN FACE OF STUD WITH GRID LINE.
2. ATTACH SIDING TO 2 X 2 FURRING. LOCATE AND FASTEN FURRING TO SHEATHING MIDWAY BETWEEN STUDS.
3. PROVIDE VINYL SIDING, J-CHANNELS AND ASSOCIATED ACCESSORIES FOR BASE BID.
4. CEMENTITIOUS SIDING BID OPTION INCLUDES SOFFIT, FASCIA AND ASSOCIATED TRIM.
5. PROVIDE CEDAR TRIM AS INDICATED FOR EITHER VINYL SIDING (BASE BID) OR CEMENTITIOUS SIDING (BID OPTION).

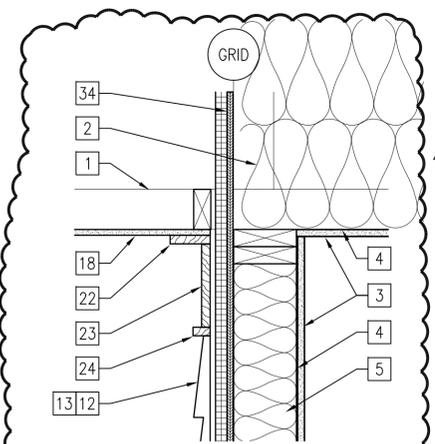
NEW WORK KEYNOTES

1. TRUSS FRAMING.
2. R-38 BATT INSULATION CONTINUOUS.
3. 5/8" GYPSUM WALLBOARD.
4. MOISTURE BARRIER CONTINUOUS ACROSS CEILING.
5. R-21 BATT INSULATION.
6. 6" STUD AT 16" O.C.
7. 1/2" PLYWOOD OR OSB SHEATHING.
8. #15 FELT OVER SHEATHING.
9. 1" RIGID INSULATION.
10. 2X2 FURRING ATTACHED BETWEEN STUDS.
11. AIR SPACE.
12. CEMENTITIOUS SIDING (BID OPTION).
13. VINYL SIDING.
14. NOT USED.
15. NOT USED.
16. NOT USED.
17. 2X6 PLATE.
18. CEMENTITIOUS VENTED SOFFIT (BID OPTION).
19. BLOCKING CONTINUOUS.
20. CONCRETE FLOOR SLAB.
21. R-5 RIGID INSULATION CONTINUOUS UNDER SLAB.
22. 3/4" x 3 1/2" CEDAR TRIM.
23. 3/4" x 7 1/4" CEDAR TRIM.
24. 3/4" x 1 1/2" CEDAR TRIM.
25. NOT USED
26. FLASHING.
27. ALUMINUM GUTTER.
28. ALUMINUM GUTTER BRACKET AT 48" O.C.
29. 4" WIDE CONTINUOUS SOFFIT VENT / INSECT SCREEN.
30. 1/2' x 6" MDO PAINTED BASE TRIM.
31. PLYWOOD SHEATHING. REFER TO NOTE 1 ON S-102.
32. 1 1/2" THICK CEDAR TRIM, EXTEND 1/2" BELOW FINISHED FLOOR.
33. SILL FLASHING/TERMITE SHIELD. EXTEND INTERIOR VERTICAL LEG 4".
34. EXTEND PLYWOOD SHEATHING 12" ABOVE BOTTOM CHORD OF TRUSS TO SUPPORT RIGID INSULATION.
35. PERMANENT BOTTOM CHORD TRUSS BRACE.
36. WRAP FASCIA WITH ALUMINUM (WHITE).
37. 2X WOOD BLOCKING.
38. CEMENTITIOUS FASCIA (BID OPTION).

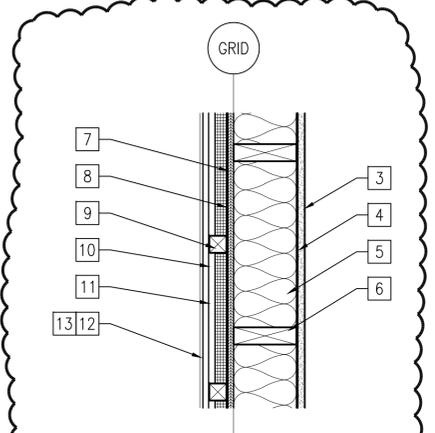
GRAPHIC SCALE



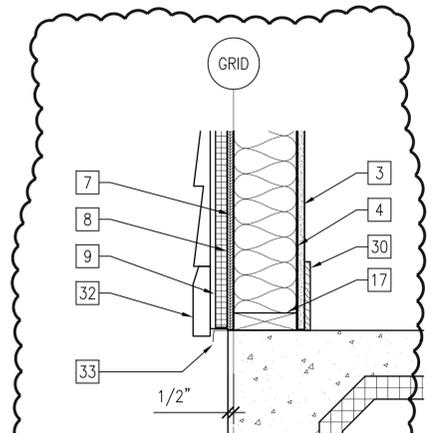
APPROVED	DATE	5/11/16
REVISIONS	DESCRIPTION	
1	GENERAL REVISIONS	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND SURFACE COMBAT SYSTEM CENTER NORFOLK, VA WALLOPS ISLAND, VA HOUSING WELCOME CENTER PARTIAL BUILDING SECTION AND WALL SECTION		
PROJECT NO.: 1366574 SHEET 41 OF 70 NAVFAC DRAWING NO. 12708213 DRAWN BY: [Name] CHECKED BY: [Name] DATE: [Date]		



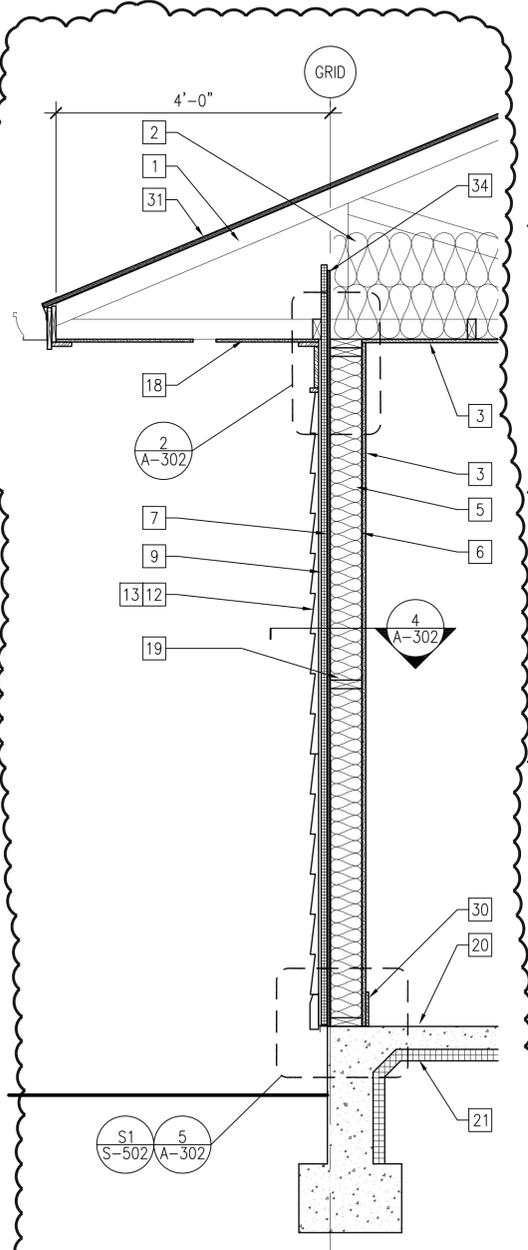
2 WALL SECTION
SCALE: 1 1/2" = 1'-0" A-302



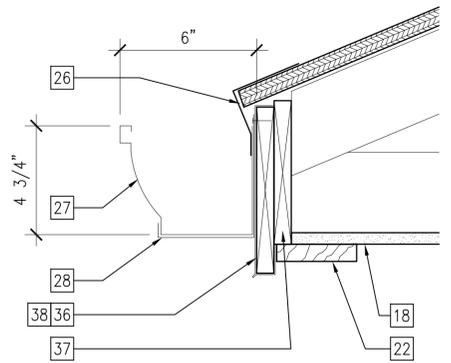
4 WALL DETAIL (PLAN)
SCALE: 1 1/2" = 1'-0" A-302



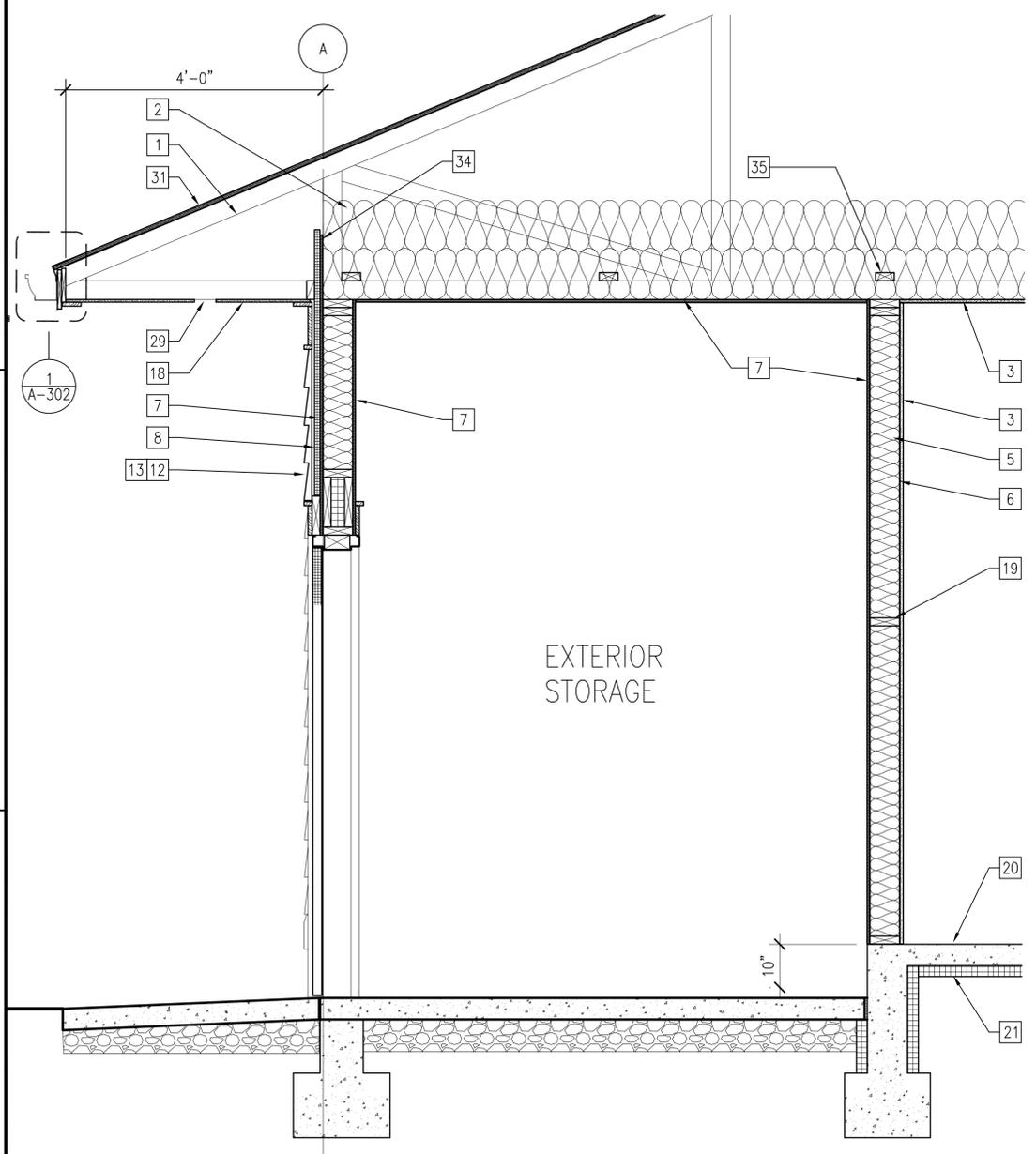
5 WALL SILL DETAIL
SCALE: 1 1/2" = 1'-0" A-302



6 WALL SECTION
SCALE: 3/4" = 1'-0" A-101, A-102



1 GUTTER DETAIL
SCALE: 3" = 1'-0" A-302



3 PARTIAL BUILDING SECTION
SCALE: 3/4" = 1'-0" A-101, A102

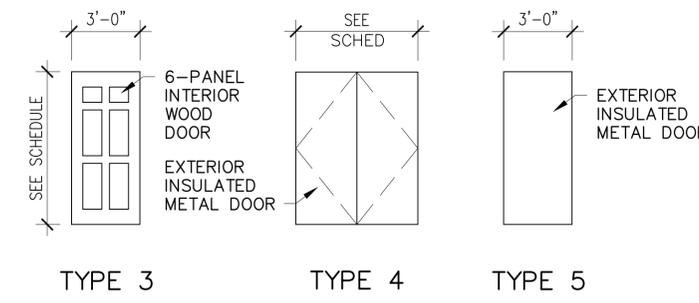
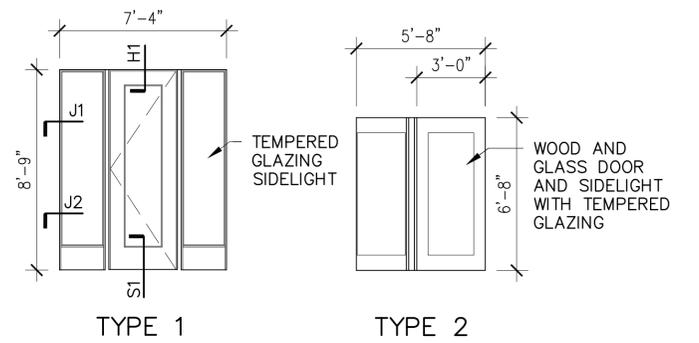
UNCLASSIFIED//FOR OFFICIAL USE ONLY

1 2 3 4 5 UNCLASSIFIED//FOR OFFICIAL USE ONLY

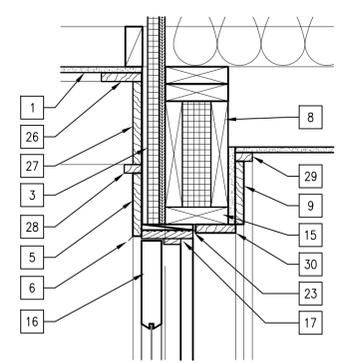
UNCLASSIFIED//FOR OFFICIAL USE ONLY

DOOR SCHEDULE							
(SEE SPECIFICATIONS SECTION 08710 FOR HARDWARE SCHEDULE)							
DOOR NO	DOOR SIZE W X H X THK	DOOR TYPE	DOOR MATERIAL	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	REMARKS
1	3'-0" X 8'-9" X 1 3/4"	1	WOOD/GLASS	H-1	J-1, 2	S-1	
2	3'-0" X 7'-0" X 1 3/4"	5	INSUL/MTL	H-2	J-3, 4	S-2	1
3	3'-0" X 7'-0" X 1 3/4"	5	INSUL/MTL	H-2	J-3, 4	S-2	
4	3'-0" X 7'-0" X 1 3/4"	5	INSUL/MTL	H-2	J-3, 4	S-2	
5	3'-0" X 7'-0" X 1 3/4"	5	INSUL/MTL	H-2	J-3, 4	S-2	
6	2-3'-0" X 7'-0" X 1 3/4"	4	INSUL/MTL	H-2	J-3, 4	S-2	
7	3'-0" X 6'-8" X 1 3/8"	3	SCWD	H-3	J-5	S-3	
8	3'-0" X 6'-8" X 1 3/8"	3	SCWD	H-3	J-5	S-3	
9	3'-0" X 6'-8" X 1 3/8"	3	SCWD	H-3	J-5	S-3	
10	3'-0" X 6'-8" X 1 3/8"	3	SCWD	H-3	J-5	S-4	

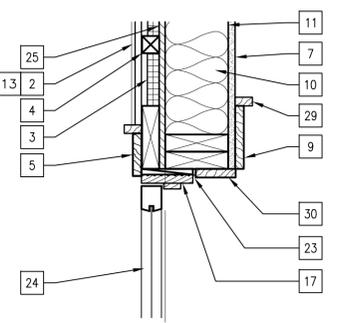
NOTE:
1. OMIT EXTERIOR DOOR HARDWARE.



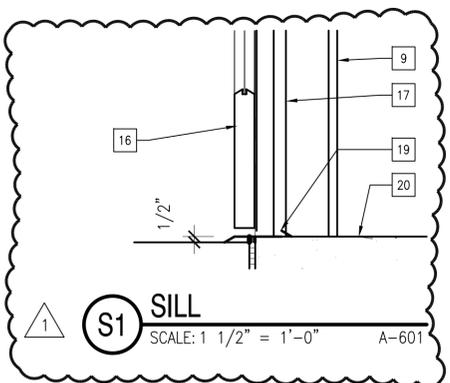
DOOR TYPES
SCALE: 1/4" = 1'-0"



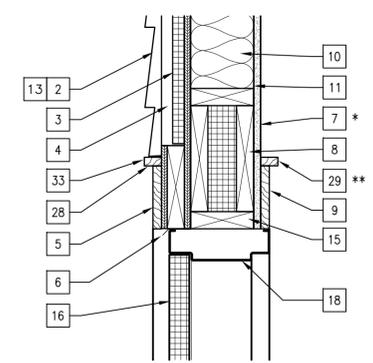
H1 HEAD
SCALE: 1 1/2" = 1'-0" A-601



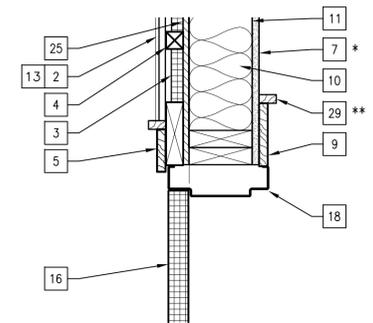
J1 JAMB
SCALE: 1 1/2" = 1'-0" A-601



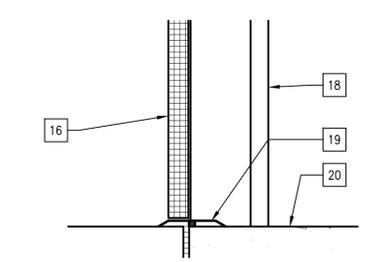
S1 SILL
SCALE: 1 1/2" = 1'-0" A-601



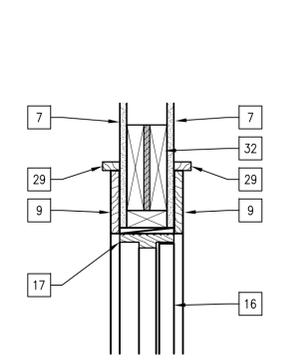
H2 HEAD
SCALE: 1 1/2" = 1'-0" A-601
* PLYWOOD AT DOOR 5
** OMIT AT DOORS 4 AND 5



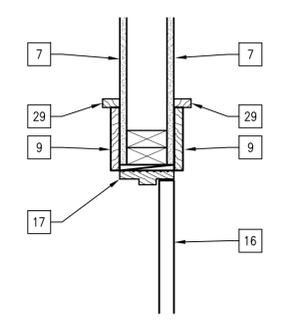
J3 JAMB
SCALE: 1 1/2" = 1'-0" A-601
* PLYWOOD AT DOOR 5
** OMIT AT DOORS 4 AND 5



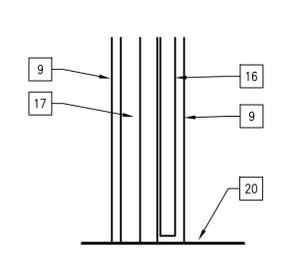
S2 SILL
SCALE: 1 1/2" = 1'-0" A-601



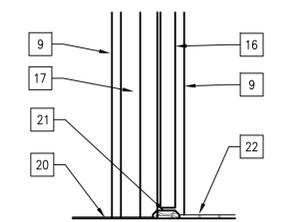
H3 HEAD
SCALE: 1 1/2" = 1'-0" A-601



J5 JAMB
SCALE: 1 1/2" = 1'-0" A-601



S3 SILL
SCALE: 1 1/2" = 1'-0" A-601



S4 SILL
SCALE: 1 1/2" = 1'-0" A-601

GENERAL SHEET NOTES

- COORDINATE AND VERIFY FRAMING OPENINGS PRIOR TO ORDERING DOORS.
- PROVIDE CEDAR EXTERIOR TRIM.
- PROVIDE MDO INTERIOR TRIM.
- ATTACH SIDING TO 2 X 2 FURRING. LOCATE AND FASTEN FURRING TO SHEATHING MIDWAY BETWEEN STUDS.

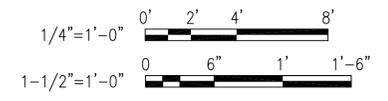
NEW WORK KEYNOTES

- CEMENTITIOUS SOFFIT (BID OPTION).
- CEMENTITIOUS SIDING (BID OPTION).
- 1" RIGID INSULATION.
- 2X2 WOOD FURRING (VERTICAL) AT 16" O.C. ATTACHED BETWEEN STUDS.
- 1" X 5 1/2" CEDAR TRIM.
- METAL THRU-WALL FLASHING.
- 5/8" GYPSUM WALLBOARD.
- DOUBLE 2 X 10 LINTEL WITH RIGID INSULATION SPACER.
- 3/4" X 5 1/2" MDO TRIM.
- R-21 BATT INSULATION.
- MOISTURE BARRIER.
- NOT USED.
- VINYL SIDING.
- NOT USED.
- 2X6 PLATE TOP AND BOTTOM.
- DOOR, REFER TO DOOR SCHEDULE.
- WOOD DOOR FRAME.
- METAL DOOR FRAME.
- METAL SADDLE WITH THERMAL BREAK.
- FLOOR FINISH. REFER TO ROOM FINISH SCHEDULE ON I-601.
- MARBLE THRESHOLD 1/2" MAX HEIGHT PER ADA.
- PORCELAIN TILE.
- SEALANT CONTINUOUS.
- SIDE LITE.
- #15 FELT OVER SHEATHING.
- 3/4" X 3 1/2" CEDAR TRIM.
- 3/4" X 7 1/4" CEDAR TRIM.
- 3/4" X 1 1/2" CEDAR TRIM.
- 3/4" X 1 1/2" MDO TRIM.
- 3/4" X 3 1/2" MDO TRIM.
- NOT USED.
- 2X8 LINTEL WITH PLYWOOD SPACER.
- RAIN DRIP.

GENERAL SHEET NOTES CONT.

- PROVIDE VINYL SIDING, J-CHANNELS AND ASSOCIATED ACCESSORIES FOR BASE BID.
- CEMENTITIOUS SIDING BID OPTION INCLUDES SOFFIT, FASCIA AND ASSOCIATED TRIM.
- PROVIDE CEDAR TRIM AS INDICATED FOR EITHER VINYL SIDING (BASE BID) OR CEMENTITIOUS SIDING (BID OPTION).

GRAPHIC SCALE



APPROVED: 5/11/16 DATE

GENERAL REVISIONS

DESCRIPTION

NAVFAC

HERM RAWLINGS

SATISFACTORY TO: DATE: MM/DD/YY

DES: DAY | DRW: AK | CHK: TLD

BRANCH MANAGER: JTL/APK

CHIEF ENG/ARCH: RLW

FIRE PROTECTION: DPS

NAVAL FACILITIES ENGINEERING COMMAND

NAVFAC

NAVAL FACILITIES ENGINEERING COMMAND

HAMPSON ROADS IFT

SURFACE COMBAT SYSTEM CENTER

WALLOPS ISLAND, VA

HOUSING WELCOME CENTER

DOOR SCHEDULE, TYPES AND DETAILS

SCALE: AS NOTED

PROJECT NO.: 1366574

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.: 12708216

SHEET 44 OF 70

A-601

DRAWN/REVISED: 10 MARCH 2009

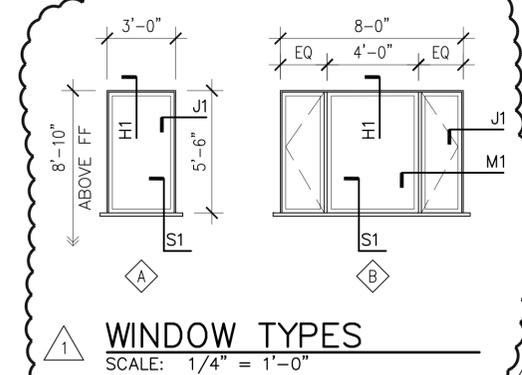
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WINDOW SCHEDULE

MARK	UNIT DESIGNATION	UNIT SIZE W x H	ROUGH OPENING W x H	MARK
⬠	P3050	2'-11 15/16" x 4'-11 7/8"	3'-0 1/2" x 5'-0 3/8"	FIXED
⬠	C15 (PAIR)	2'-0 1/8" x 4'-11 7/8"	2'-0 5/8" x 5'-0 3/8"	OPERABLE
	P4050	4'-0" x 4'-11 7/8"	4'-0 1/2" x 5'-0 3/8"	FIXED

NOTE: WINDOW UNIT DESIGNATIONS SELECTED FROM ANDERSEN CORP. 400 SERIES. OTHER MANUFACTURERS' PRODUCTS MAY BE SUBMITTED FOR APPROVAL PROVIDED THEY CLOSELY APPROXIMATE COLOR, SIZE AND STYLE AND CONFORM TO ALL OTHER REQUIREMENTS SPECIFIED.



WINDOW TYPES

SCALE: 1/4" = 1'-0"

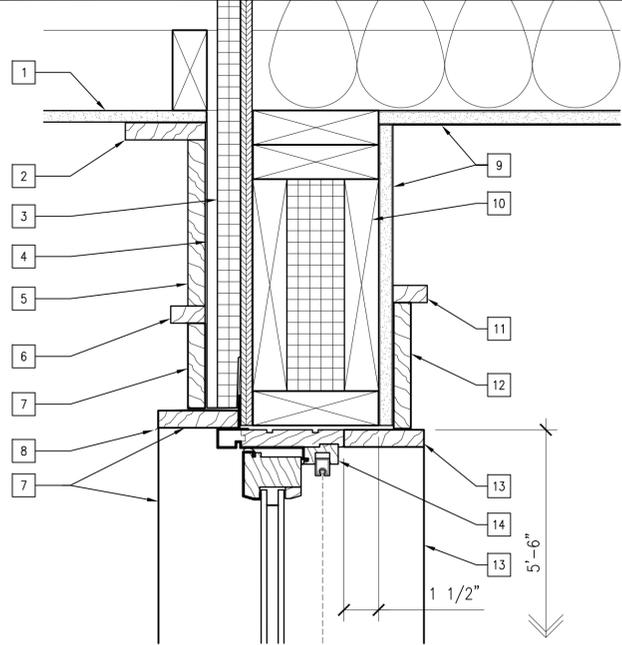
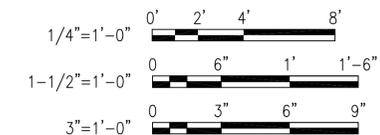
GENERAL SHEET NOTES

- COORDINATE AND VERIFY FRAMING OPENINGS PRIOR TO ORDERING WINDOWS.
- PROVIDE CEDAR EXTERIOR TRIM.
- PROVIDE MDO INTERIOR TRIM.
- ATTACH SIDING TO 2 X 2 FURRING. LOCATE AND FASTEN FURRING TO SHEATHING MIDWAY BETWEEN STUDS.

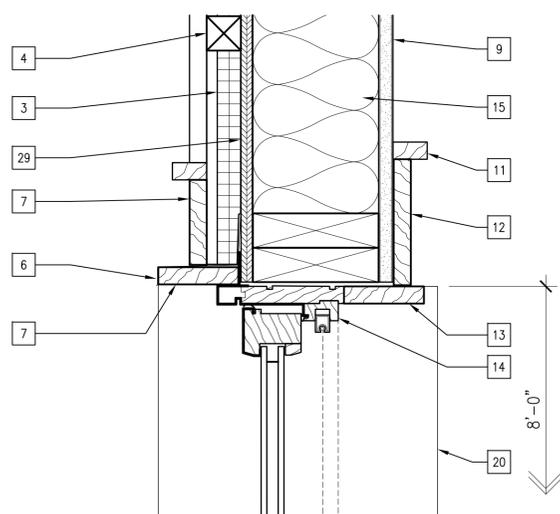
NEW WORK KEYNOTES

- CEMENTITIOUS SOFFIT (BID OPTION).
- 3/4" X 3 1/2" CEDAR TRIM.
- 1" RIGID INSULATION.
- 2 X 2 FURRING (VERTICAL).
- 3/4" X 7 1/4" CEDAR TRIM.
- 3/4" X 1 1/2" CEDAR TRIM.
- 3/4" X 3 3/4" CEDAR TRIM.
- METAL THRU-WALL FLASHING.
- 5/8" GYPSUM WALLBOARD.
- DOUBLE 2 X 10 LINTEL WITH RIGID INSULATION SPACER.
- 3/4" X 1 1/2" MDO TRIM.
- 3/4" X 5 1/2" MDO TRIM.
- 3/4" X 3 1/2" MDO TRIM.
- VINYL-CLAD WOOD WINDOW WITH INSULATED GLAZING AND INSECT SCREEN.
- R-21 BATT INSULATION.
- SILL FLASHING.
- WINDOW SILL BELOW
- 3/4" X 2 1/2" CEDAR TRIM.
- 3/4" X 2 1/2" MDO APRON.
- 1" X 4" MDO STOOL.
- CEMENTITIOUS SIDING (BID OPTION).
- PORCELAIN WALL TILE.
- CONTINUOUS BLOCKING AS REQUIRED.
- SOLID SURFACE COUNTERTOP, BACKSPLASH AND INTEGRAL SINK.
- 3/4" PLYWOOD SUBSTRATE.
- REMOVABLE PANEL.
- TREATED WOOD BLOCKING AS REQUIRED.
- TRIM BY WINDOW MANUFACTURER.
- #15 FELT OVER SHEATHING.
- VINYL SIDING.

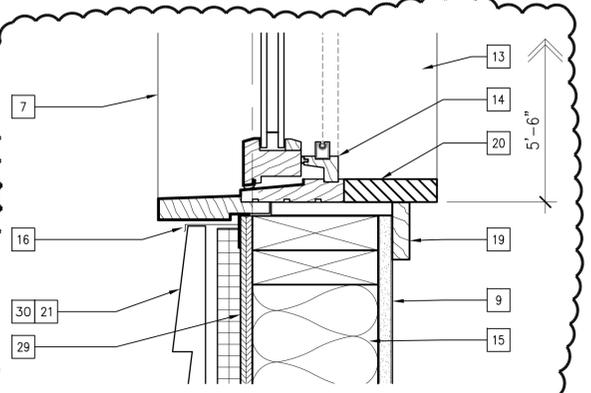
GRAPHIC SCALE



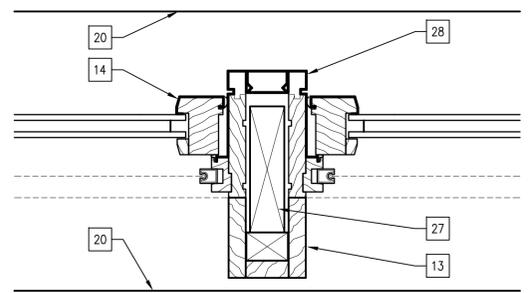
H1 HEAD
SCALE: 3" = 1'-0"
A-601



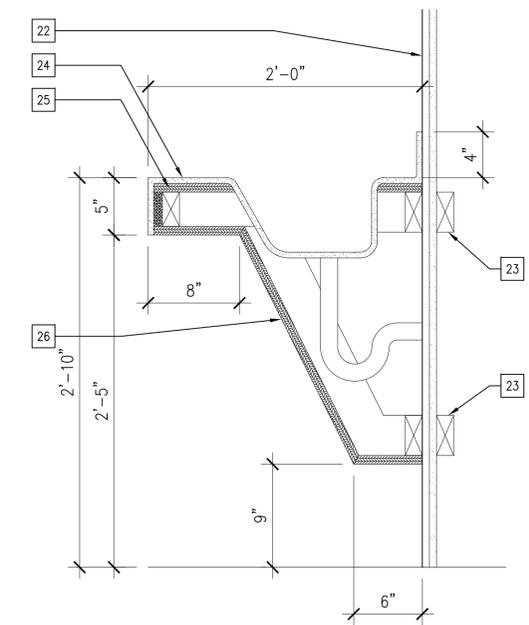
J1 JAMB
SCALE: 3" = 1'-0"
A-601



S1 SILL
SCALE: 3" = 1'-0"
A-601



M1 MULLION
SCALE: 3" = 1'-0"
A-601



A VANITY SECTION
SCALE: 1 1/2" = 1'-0"
A-101

APPROVED: [Signature]

DATE: 5/11/16

GENERAL REVISIONS

NO. DESCRIPTION

1

NAVFAC

HERM RAWLINGS

SATISFACTORY TO: [Signature]

DATE: MM/DD/YY

DES: DAY | DRW: AK | CHK: TLD

PM/DM: JTL/APK

BRANCH MANAGER

CHIEF ENG/ARCH: RLW

FIRE PROTECTION: DPS

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

NAVAL FACILITIES ENGINEERING COMMAND

HAMPSON ROUS IFT

SURFACE COMBAT SYSTEM CENTER

WALLOPS ISLAND, VA

HOUSING WELCOME CENTER

WINDOW SCHEDULE TYPES WINDOW AND MISCELLANEOUS DETAILS

SCALE: AS NOTED

PROJECT NO.: 1366574

CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12708217

SHEET 45 OF 70

A-602

DRAWING REVISION: 10 MARCH 2009

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GENERAL SHEET NOTES

1. DIMENSIONS ARE SHOWN TO FACE OF FINISH AND ARE APPROXIMATE. FIELD VERIFY PRIOR TO CONSTRUCTION.
2. REFERENCE I-601 FOR INTERIOR FINISH LEGEND.

NEW WORK KEYNOTES

1. FULL HEIGHT BACK AND END SPLASHES.
2. INSTALL WALL TILE FLUSH WITH FLOOR TILE; ALIGN JOINTS BETWEEN FLOOR AND WALL.
3. MICROWAVE CABINET.
4. SOFFIT ABOVE.

NEW WORK NOTES

1. BASIS OF DESIGN FOR KITCHEN CABINET COLOR:
MFR: SHILHOH CABINETRY
COLOR: SILAS WITH HIGHLIGHT GRAPHITE
2. BASIS OF DESIGN FOR CABINETRY HARDWARE:
MFR: AMEROCK
COLLECTION: CANDLER
TYPE: PULL
SIZE: 3"
MODEL: BP29349G10
FINISH: SATIN NICKEL
NOTE: USE ON ALL DOORS AND DRAWERS

GENERAL REVISIONS	DATE	DESCRIPTION
1	5/6/16	



APPROVED: _____
FOR COMMANDER NAFAC

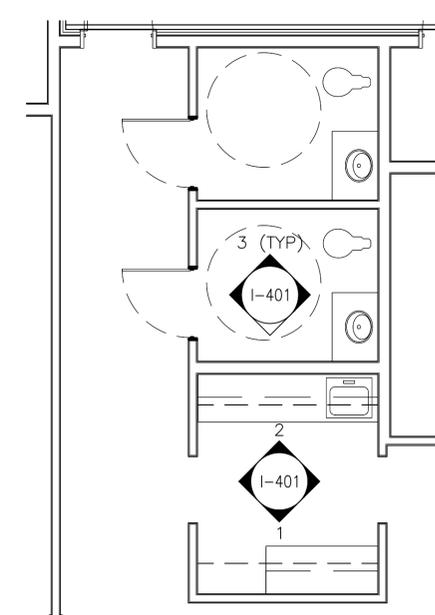
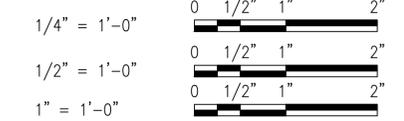
ACTIVITY: **HERM RAWLINGS**
SATISFACTORY TO: _____ DATE: MM/DD/YY
DES: ??? DW: ??? CHK: ???
FM/DM: JTL/APK
BRANCH MANAGER:
CHIEF ENG/ARCH: RLV
FIRE PROTECTION: DPS

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVFAC ROADS IFT
SURFACE COMBAT SYSTEM CENTER
WALLOPS ISLAND, VA

HOUSING WELCOME CENTER
INTERIOR ELEVATIONS

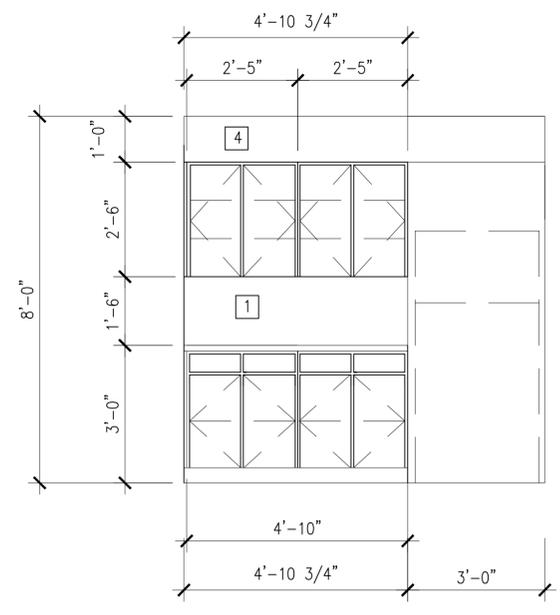
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PROJECT NO.: 1366574
CONSTR. CONTR. NO.:
NAVFAC DRAWING NO.: 12708219
SHEET 47 OF 70
I-401

GRAPHIC SCALE



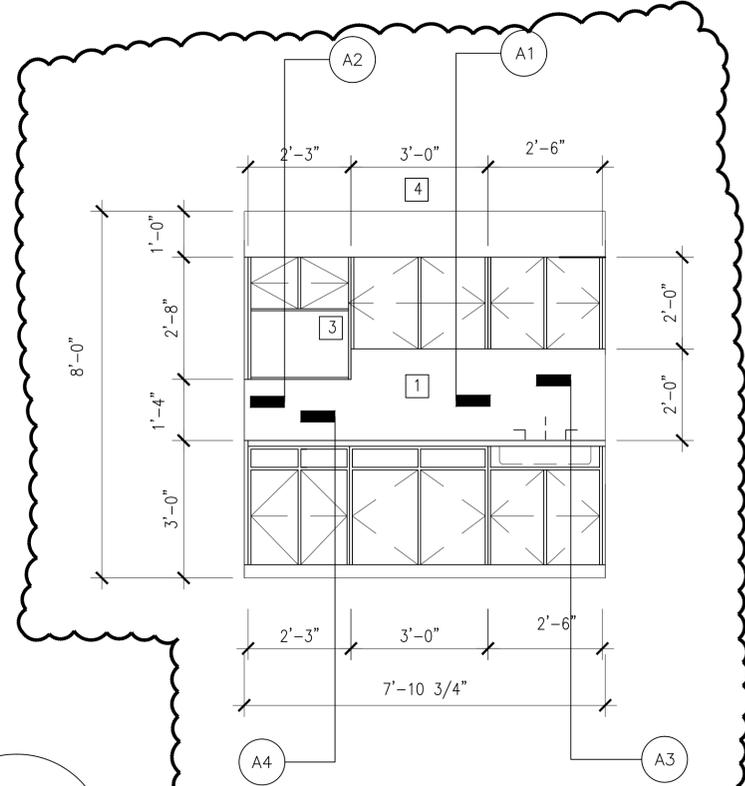
TOILET/KITCHEN PLAN

SCALE: 1/4" = 1'-0"



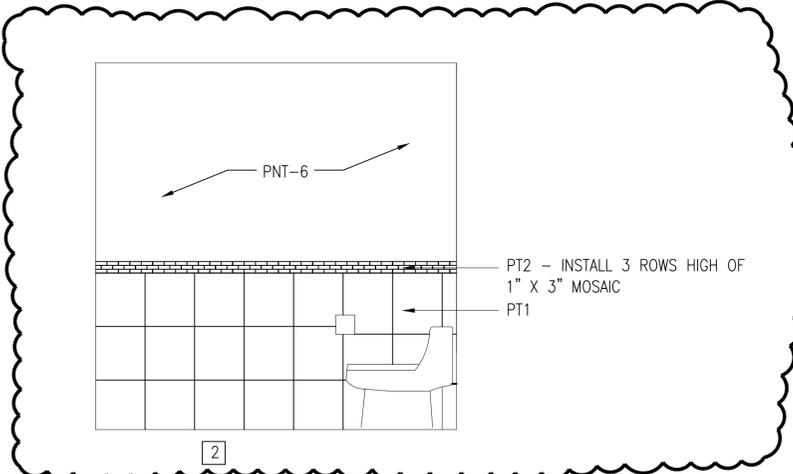
1 CABINET ELEVATION

SCALE: 1/2" = 1'-0"



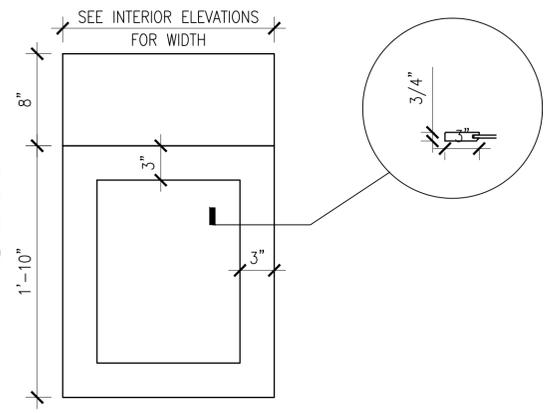
2 CABINET ELEVATION

SCALE: 1/2" = 1'-0"



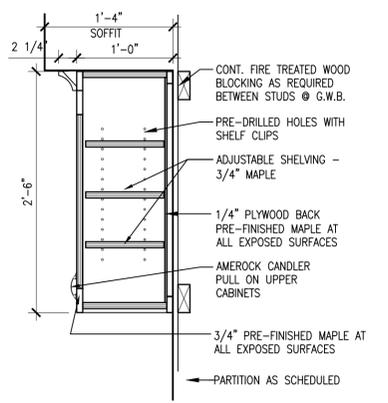
3 ELEVATION - TILE PATTERN (TYP)

SCALE: 1/2" = 1'-0"



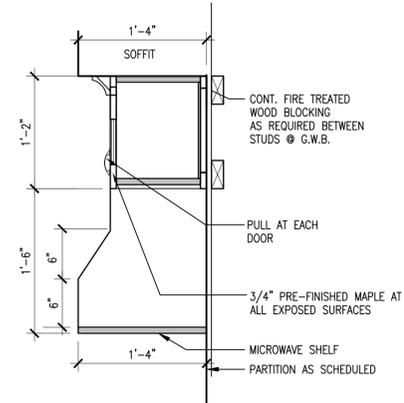
4 CABINET DOOR ELEVATION

SCALE: 1/2" = 1'-0"



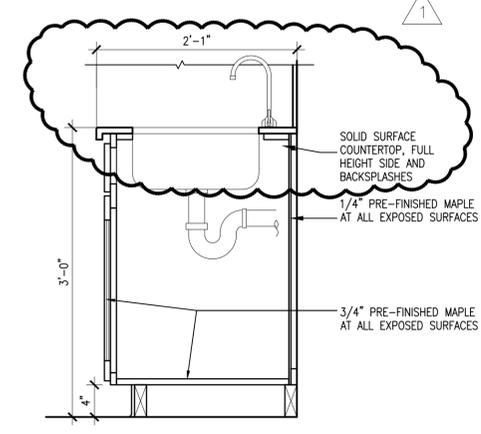
A1 WALL CABINET

SCALE: 1" = 1'-0"



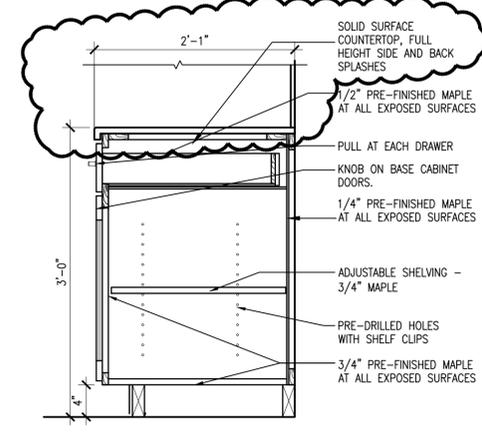
A2 MICROWAVE CABINET

SCALE: 1" = 1'-0"



A3 SINK BASE

SCALE: 1" = 1'-0"



A4 BASE CABINET

SCALE: 1" = 1'-0"

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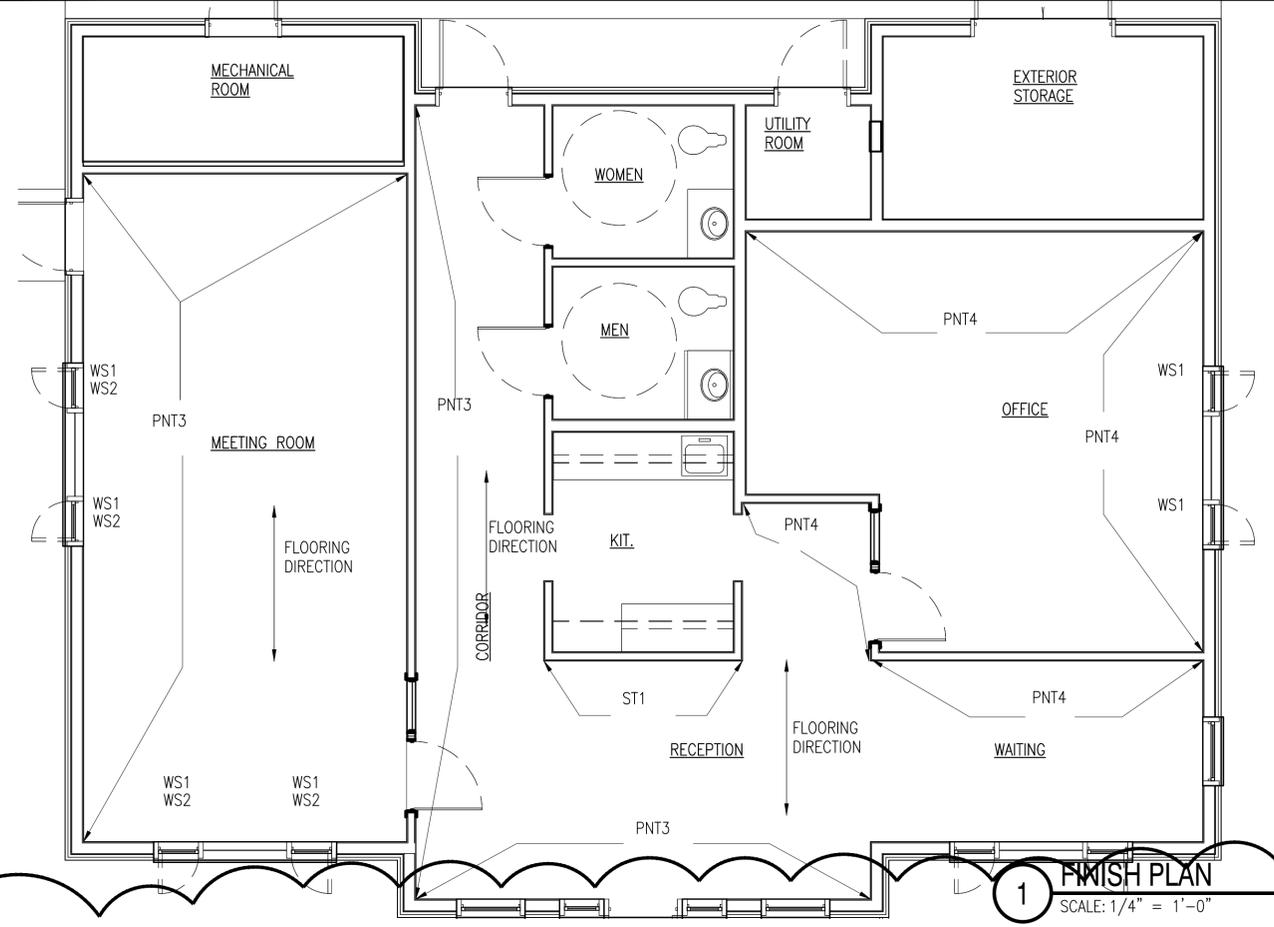
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NEW WORK NOTES

- FINISHES INDICATED ARE THE APPROVED BASIS OF DESIGN TO CONVEY COLOR, PATTERN, TEXTURE, AND SALIENT CHARACTERISTICS ONLY. THE LISTING OF MANUFACTURER INFORMATION IS NOT INTENDED TO LIMIT THE SELECTION OF PRODUCTS PROVIDED BY OTHER MANUFACTURERS. PRODUCT SUBSTITUTIONS MEETING THESE CRITERIA WILL BE CONSIDERED AND MUST BE REVIEWED BY THE INTERIOR DESIGNER OF RECORD (IDOR) AND THE NAVFAC INTERIOR DESIGNER AND APPROVED BY THE CONTRACTING OFFICER.
- NO FINISH MATERIALS SHALL BE SUBSTITUTED DUE TO ORDERING LEAD TIMES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ORDER ALL MATERIALS IN A TIMELY FASHION TO AVOID DELAYS.
- PROVIDE CLEAR CORNER GUARDS ON ALL OUTSIDE CORNERS EXCEPT WHERE ST-1 OCCURS. CORNER GUARDS SHALL SPAN FULL HEIGHT FROM BASE TO CEILING. BASIS OF DESIGN: KOROGUARD LEXAN.
- ALL GYPSUM BOARD SURFACES (WALLS & CEILINGS) TO BE FINISHED WITH A LEVEL 5 FINISH.
- ALL SURFACE PREPARATION AND CLEANING PROCEDURES SHALL BE IN STRICT ACCORDANCE WITH THE INSTRUCTIONS AND SPECIFICATIONS OF THE PAINT MANUFACTURER WHOSE PRODUCTS ARE BEING USED.
- FOR DARKER/SATURATED PAINT COLORS, FOLLOW MANUFACTURERS RECOMMENDATION FOR PROPER APPLICATION AND COVERAGE.
- ACCESS PANELS SHALL BE SPRAY PAINTED TO MATCH THE ADJACENT WALL COLOR. PANELS PAINTED BY BRUSH ARE NOT ACCEPTABLE.
- PAINT SHEENS: CEILINGS SHALL BE FLAT, SOFFITS, AND WALLS IN ALL ROOMS SHALL BE EGGSHELL, METAL AND WOOD DOORS AND ALL INTERIOR TRIM SHALL BE SEMI-GLOSS.
- ALL TRANSITIONS OCCURRING UNDER DOORS SHALL BE CENTERED UNDER DOOR.
- ALL TRANSITIONS SHALL MEET ABA REQUIREMENTS.
- PROVIDE BLOCKING AS REQUIRED AT ALL EQUIPMENT AND ACCESSORY LOCATIONS.
- WHERE WS-1 AND WS-2 ARE INDICATED, A DOUBLE ROLLER SHADE SHALL BE INSTALLED.
- PAINT ALL WOOD DOORS, DOOR TRIM, WINDOW TRIM AND WOOD BASE PNT5 / PPG 1024-6 PATCHES.
- FINAL GROUT COLOR FOR TILE AND STONE TO BE SELECTED FROM FULL LINE OF MANUFACTURER'S OFFERINGS FOR GROUT TYPE PROVIDED.
- TRIM OUT EXPOSED ENDS OF ST-1 AT WALL EDGES USING WOOD TRIM. TRIM TO MATCH VERTICAL MEMBER OF WOOD TRIM STYLE USED AT DOOR CASINGS. PAINT TO MATCH.

INTERIOR FINISH ABBREVIATIONS

CPT	-	CARPET
GT	-	GROUT
GWB	-	GYPSUM WALLBOARD
MRGWB	-	MOISTURE RESISTANT GYPSUM WALLBOARD
PNT	-	PAINT
PT	-	PORCELAIN TILE
SC	-	SEALED CONCRETE
ST	-	NATURAL STONE
SS	-	SOLID SURFACE
RF1	-	RESILIENT FLOOR
WS	-	WINDOW SHADE
*	-	INDICATES ADDITIONAL INFORMATION



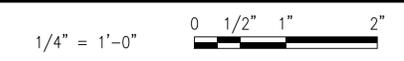
INTERIOR FINISH LEGEND

TAG	MATERIAL	SIZE	MANUFACTURER	STYLE- TYPE	COLOR	FINISH	INSTALLATION	REMARKS/LOCATION
CPT1	CARPET TILE	24" X 24"	BOYLU	SAWGRASS	SWG12 WINTER'S LACE	--	MONOLITHIC	WITH ILOC ES CUSHION RE
PL1	PLASTIC LAMINATE	--	WILSONART	7960K-18	STUDIO TEAK	LINEARITY WITH AEON	--	SINK APRONS UNDER BATHROOM LAVATORIES
PNT1	PAINT	--	PPG	1006-1	GYPSUM	FLAT	--	CEILING PAINT
PNT 2	PAINT	--	PPG	1098-3	SAND FOSSIL	EGGSHELL	--	GENERAL WALL PAINT
PNT 3	PAINT	--	PPG	1086-5	EARTHY OCHER	EGGSHELL	--	ACCENT PAINT
PNT 4	PAINT	--	PPG	10-19	FAVORITE FLANNEL	EGGHSSELL	--	ACCENT PAINT
PNT 5	PAINT	--	PPG	1024-6	PATCHES	SEMI-GLOSS	--	DOOR/TRIM PAINT
PNT 6	PAINT	--	PPG	1008-2	STORM'S COMING	SEMI-GLOSS	--	PAINT ABOVE PT2 IN RESTROOMS
PT1	PORCELAIN TILE	13" X 13"	TRINITY TILE	PURE	JOY	--	SEE ELEVATION	FLOOR TILE / FIELD WALL TILE /RESTROOM
PT2	PORCELAIN TILE	13"x13" 1X3 BRICK MOSAIC	TRINITY TILE	PURE	LIFE	--	SEE ELEVATION	WALL TILE/ACCENT/RESTROOM
RF1	RESILIENT FLOOR - LUXURY VINYL TILE	4" X 36"	PATCRAFT	1200V HIGHLAND FOREST	20100 ASHWOOD	--	SEE FINISH PLAN	--
SC	SEALED CONCRETE	--	---	NATURAL COLOR		SMOOTH FINISH		BACK OF HOUSE SPACES
ST1	MANUFACTURED STONE	--	ELDORADO STONE	STACKED STONE	NANTUCKET	--	FULL WALL	*SEE NEW WORK NOTE #16 FOR EDGE FINISH TREATMENT
SS1	SOLID SURFACE	--	AVONITE	F1-7711	JURASSIC	SATIN	--	KITCHEN/COUNTERTOP/FULL HEIGHT BACKSPLASH
SS2	SOLID SURFACE	--	AVONITE	F1-9137	CASABLANCA	SATIN	--	BATHROOM COUNTERS
SS3	SOLID SURFACE	--	AVONITE	F1-8106	IVORY	SATIN	INTEGRAL	LAV WITH COUNTER SS2; BOWL STYLE VS-1815
WS1	WINDOW SHADE	--	MECHOSYSTEMS	EUROTWILL	6004 SAND	LIGHT FILTERING	--	MANUAL OPERATION
WS2	WINDOW SHADE	--	MECHOSYSTEMS	MIDNITE	0208 NAPA	BLACKOUT SHADECLOTH	--	MANUAL OPERATION

ROOM FINISH SCHEDULE

ROOM NAME	FLOOR	BASE	WALL	CEILING	NOTES
MECHANICAL RM	SC	--	PNT2	GWB/PNT1	
MEETING ROOM	RF1	WOOD	PNT2/PNT3	GWB/PNT1	
CORRIDOR	RF1	WOOD	PNT2	GWB/PNT1	
WOMEN	PT1	---	MRGWB/PNT6/PT2/PT3*	MRGWB/PNT1	*SEE ELEVATIONS / SS2 @ LAVS
MEN	PT1	---	MRGWB/PNT6/PT2/PT3*	MRGWB/PNT1	*SEE ELEVATIONS / SS2 @ LAVS
KITCHEN	RF1	WOOD	PNT2	GWB/PNT1	*SS1 @ KITCHEN COUNTERS & BACKSPLASH
RECEPTION	RF1	WOOD	ST1/PNT2/PNT3*	GWB/PNT1	*SEE FINISH PLAN
WAITING	RF1	WOOD	PNT2/PNT4	GWB/PNT1	
OFFICE	CPT1	WOOD	PNT2/PNT4	GWB/PNT1	
UTILITY ROOM	SC	---	PNT2	GWB/PNT1	
STORAGE (EXT)	SC	---	PNT2	PNT1*	*PLYWOOD CEILING

GRAPHIC SCALE



GENERAL REVISIONS

NO.	DATE	DESCRIPTION
1	5/6/16	

APPROVED: _____ DATE: _____

FOR COMMANDER NAVFAC

ACTIVITY: _____

HERM RAWLINGS

SUBMITTAL TO: _____ DATE: MM/DD/YY

DES: ??? | DW: ??? | CHK: ???

PM/DM: JTL/APK

BRANCH MANAGER: _____

CHIEF ENG/ARCH: RLW

FIRE PROTECTION: DPS

NAVFACILITIES ENGINEERING COMMAND

NAVFACILITIES ENGINEERING COMMAND

HAMPSON ROADS IFT

SURFACE COMBAT SYSTEM CENTER

WALLOPS ISLAND, VA

HOUSING WELCOME CENTER

FINISH PLAN

SCALE: AS NOTED

PROJECT NO.: 1366574

CONSTR. CONTR. NO.:

NAVFAC DRAWING NO. 12708220

SHEET 48 OF 70

I-601

DRAWFORM REVISION: 10 MARCH 2009

FILE NAME: P:\VA\Wallops Island\WELCOME CENTER\B_Design\Drawings\Sheet\B_Design\Housing\WelcomeCenter\I-601.dwg LAYOUT NAME: I-601 PLOTTED: Monday, May 02, 2016 - 4:40pm USER: chrstina.mcdoley

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GENERAL SHEET NOTES

- REFER TO SIGN TYPES AND ASSOCIATED AREAS FOR SPECIFIC GRAPHICS.
- MOUNTING OF THE MODULAR SIGNAGE SYSTEM SHALL INCLUDE SURFACE MOUNTING WITH SCREW-IN APPLICATIONS FOR INTERIOR WALLS.

GENERAL REVISIONS	DATE	DESCRIPTION
5/6/16		

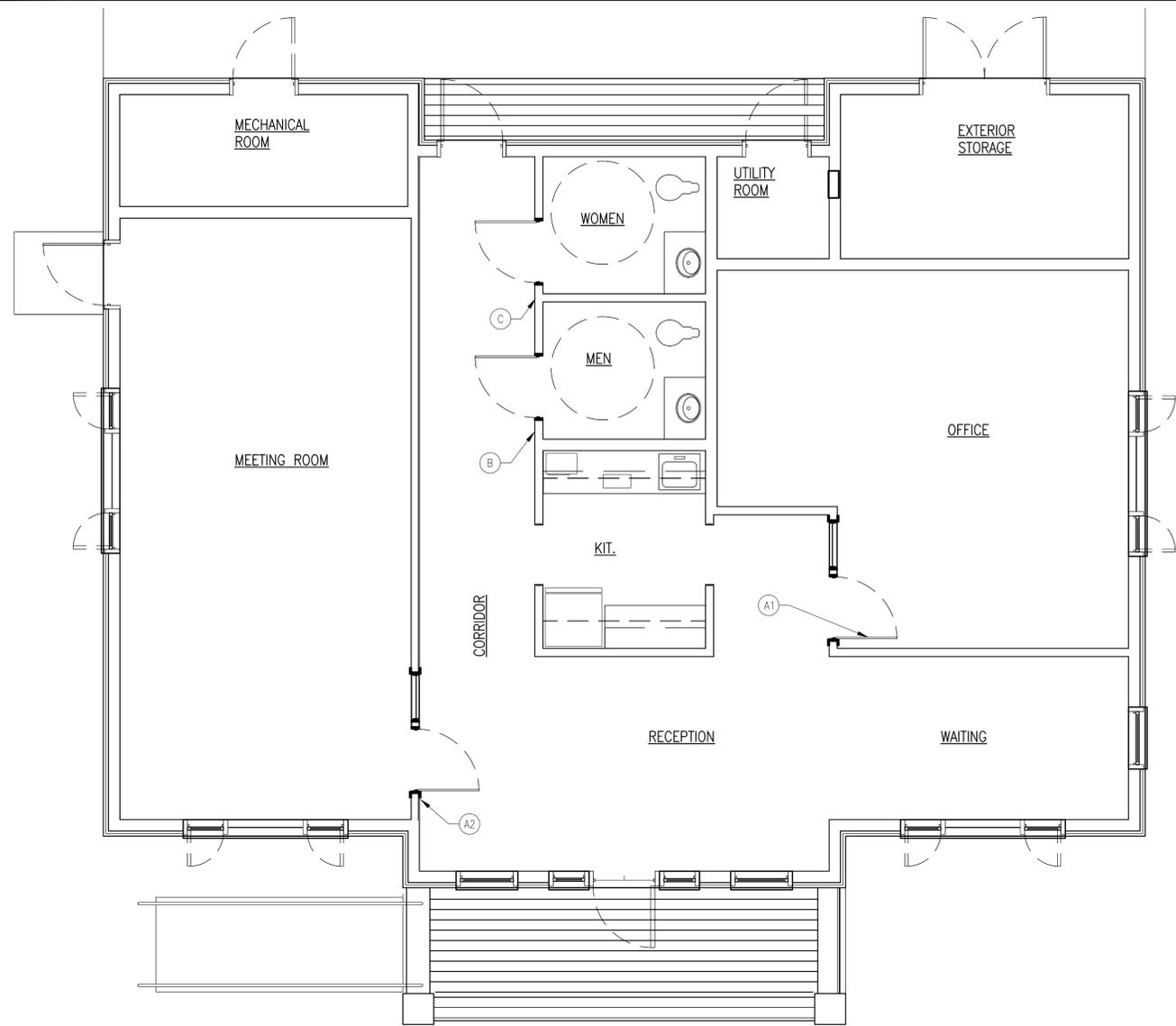


APPROVED	A/E INFO
FOR COMMANDER NAFAC	
ACTIVITY	
HERM RAWLINGS	
SATISFACTORY TO	DATE MM/DD/YY
DES CBM	DRW CBM
CHK	???
BRANCH MANAGER	
JTL/APK	
CHIEF ENG/ARCH	RLW
FIRE PROTECTION	DPS

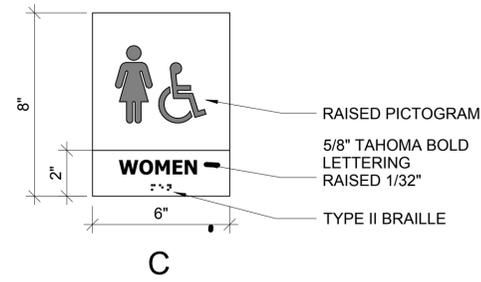
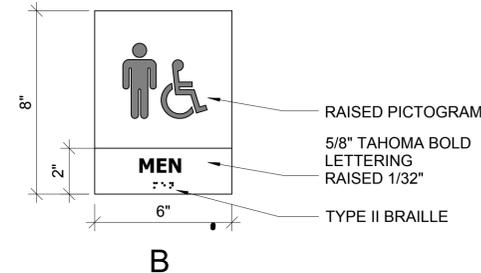
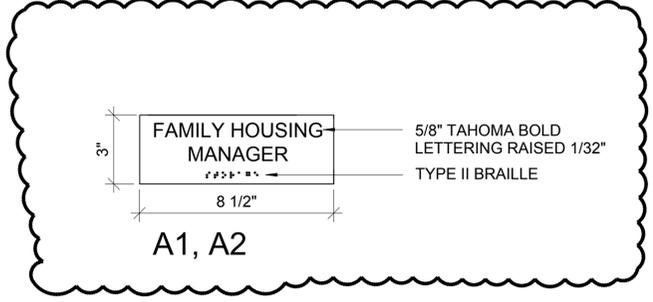
NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL FACILITIES ENGINEERING COMMAND
 SURFACE COMBAT SYSTEM CENTER
 NORFOLK VA
 WALLOPS ISLAND, VA

HOUSING WELCOME CENTER
 SIGNAGE PLAN AND DETAILS

SCALE:	AS NOTED
PROJECT NO.:	1366574
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12708221
SHEET	49 OF 70
I-701	



SIGNAGE KEY	
SIGN TYPE	LABEL
A1	FAMILY HOUSING MANAGER
A2	MEETING ROOM
B	WOMEN
C	MEN

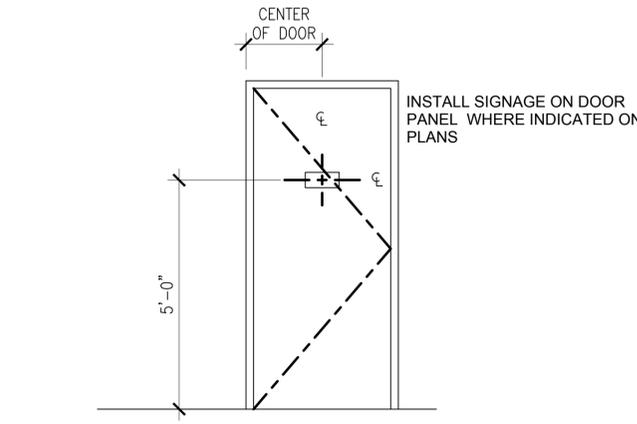
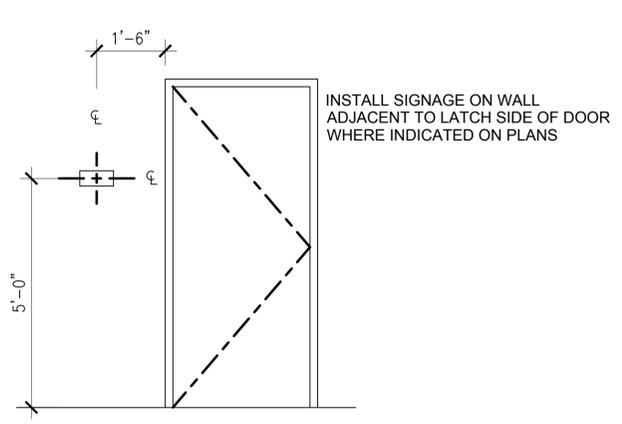


2 SIGNAGE TYPES
SCALE: NTS



5 SIGNAGE BASIS OF DESIGN
SCALE: NTS

1 SIGNAGE PLAN
SCALE: 1/4" = 1'-0"

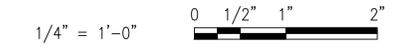


3 SIGNAGE MOUNTING LOCATION
SCALE: NTS

4 SIGNAGE MOUNTING LOCATION
SCALE: NTS



GRAPHIC SCALE



FILE NAME: P:\VA\Wallops Island\Wallops COMBAT SYSTEM CENTER\Design\Drawings\Sheet\B_Housing>WelcomeCenter\B_HousingWelcomeCenter.dwg LAYOUT NAME: I-701 PLOTTED: Monday, May 02, 2016 - 4:41pm USER: chrstina.mslshay

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PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	H.W. (in)	C.W. (in)	WASTE (in)	TRAP (in)	REMARKS
P-1	WATER CLOSET, MANUAL FLUSH	-	1	4	-	1,2
P-2	LAVATORY, PUBLIC, FAUCET, COUNTER TOP	1/2	1/2	1-1/2	1-1/2	1,2
P-3	KITCHEN SINK, GOOSNECK FAUCET, COUNTER TOP	1/2	1/2	1-1/2	1-1/2	1
P-4	REFRIGERATOR ICE MAKER TAP	-	1/2	-	-	1
HB-1	WALL HYDRANT	-	1/2	-	-	1

NOTES:

- INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- HANDICAPPED ACCESSIBLE.

BACKFLOW PREVENTER SCHEDULE

MARK	SERVICE	LOCATION	TYPE	SIZE	MAXIMUM PD PSI AT GPM	REMARKS
BFP-1	CW SUPPLY	MECHANICAL ROOM	-	2"	13 @ 40	1

NOTES:

- PROVIDE A REDUCED PRESSURE ZONE ASSEMBLY.

EXPANSION TANK SCHEDULE

MARK	TANK VOL. (GALS)	TYPE	AIR CHARGE (PSIG)	CONFIGURATION	APPROX. DIMEN. (DIA.X HGT)	LOCATION	REMARKS
ET-1	2.1	-	-	VERTICAL	8-1/4"x10-3/16"	MECH. ROOM	1

NOTES:

- PROVIDE EXPANSION TANK WITH MANUFACTURER'S RECOMMENDED AIR CHARGE.

MIXING VALVE SCHEDULE

MARK	SERVICE	"TEMPERED" WATER TEMPERATURE (°F)	MIN. FLOW (GPM)	ALLOWABLE PD PSIG AT GPM	CW	HW	REMARKS
MV-1	HW HEATER	110	1/2	15/33	3/4"	3/4"	1

NOTES:

- MIXING VALVE SHALL COOL 140°F ENTERING HW TO 110°F LEAVING WATER.

DOMESTIC WATER HEATER SCHEDULE

MARK	TANK VOLUME (GAL), MIN.	DCW INLET TEMP (°F)	WATER STORAGE TEMP (°F)	CAPACITY (W)		TYPE	ELECTRICAL VOLTS/ PHASE/ HZ/AMPS	ENERGY FACTOR MIN.	RECOVERY RATE CAPY, MIN. (GPH)	LOCATION	REMARKS
				INPUT	OUTPUT						
DWH-1	20	44	140	3800		ELECTRIC	240/1/30	0.95	17 @ 90°F	MECH. ROOM	1,2

NOTES:

- INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- MIXING VALVE SHALL COOL 140°F ENTERING HW TO 110°F LEAVING WATER.



APPROVED
FOR COMMANDER NAVFAC

ACTIVITY
HERM RAWLINGS

SATISFACTORY TO DATE MM/DD/YY
DES DAV [] DSW DAV [] CHK TLH []
PA/DM JTL/APK
BRANCH MANAGER
CHIEF ENG/ARCH RLW
FIRE PROTECTION DPS

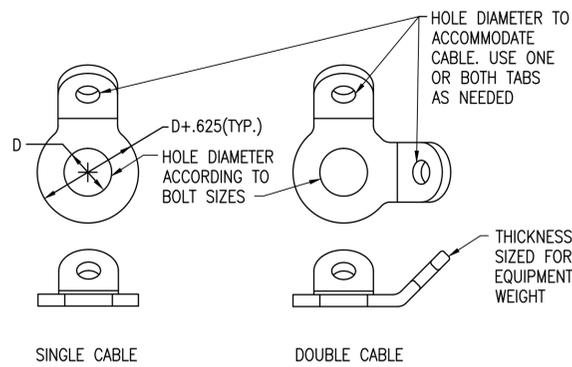
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
HAMPSON ROADS IPT
SURFACE COMBAT SYSTEM CENTER
WALLOPS ISLAND, VA
HOUSING WELCOME CENTER
PLUMBING SCHEDULES

SCALE: AS NOTED
EPROJCT NO.: 1366574
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12708229
SHEET 57 OF 70
P-601

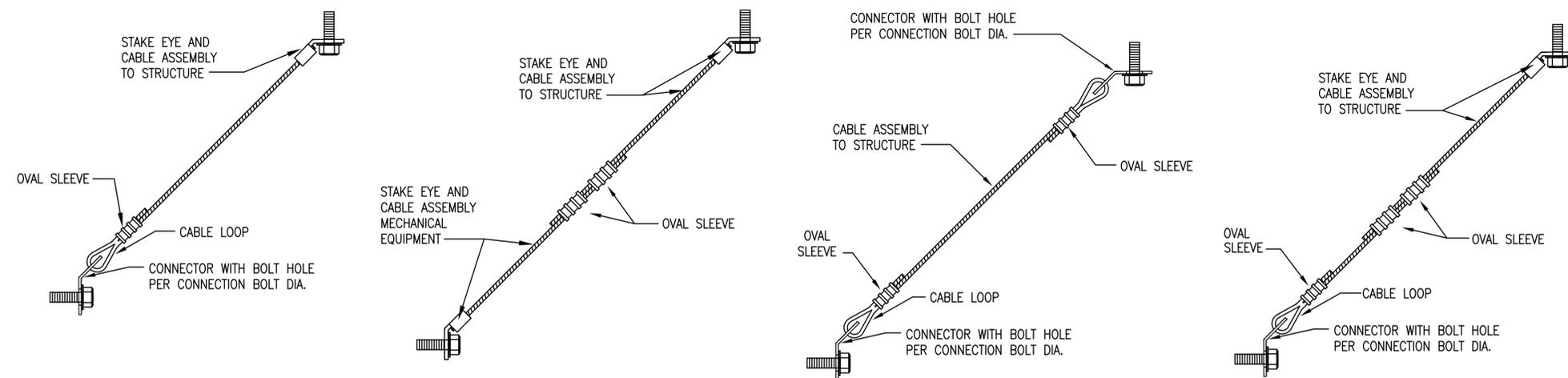
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FILE NAME: P:\VA\Wallops Island\MILCON\2016_1366574_P-601.dwg UNOUT NAME: #### PLOTTED: Thursday, May 05, 2016 3:32pm USER: john.m.taylor1

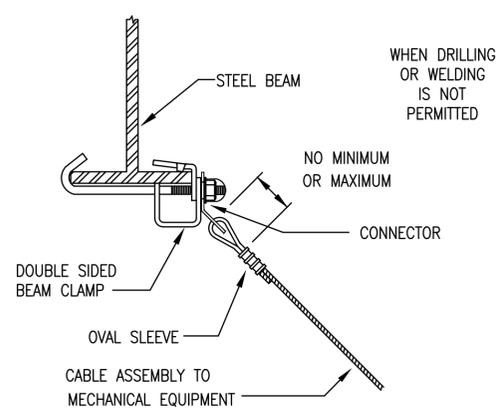


ATFP BRACING CONNECTOR DETAIL (C1)
NO SCALE M-101



NOTE: SEE ATFP CABLE BRACING ATTACHMENT TO STRUCTURE DETAIL B1, AND ATFP BRACING CONNECTOR DETAIL A1, THIS SHEET.

ATFP CABLE BRACING ASSEMBLY DETAIL (C2)
NO SCALE M-101



ATFP CABLE BRACING ATTACHMENT TO STRUCTURE DETAIL (B1)
NO SCALE M-101

APPROVED	DATE	APP'R
FOR COMMANDER NAVFAC		
ACTIVITY		
HERM RAWLINGS		
SATISFACTORY TO	DATE	MM/DD/YY
DES JMT	DRW JMT	CHK TLH
FM/DM	JTL/APK	
BRANCH MANAGER		
CHIEF ENG/ARCH	RLW	
FIRE PROTECTION	DPS	
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND	
HAMPSON ROADS IPT	NAVAL FACILITIES ENGINEERING COMMAND	
SURFACE COMBAT SYSTEM CENTER	NORFOLK VA	
	WALLOPS ISLAND, VA	
	HOUSING WELCOME CENTER	
	MECHANICAL DETAILS	
SCALE:	AS NOTED	
PROJECT NO.:	1366574	
CONSTR. CONTR. NO.		
NAVFAC DRAWING NO.	12708233	
SHEET #	OF 70	
M-502		
DRAWFORM REVISION: 10 MARCH 2009		

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DX SPLIT SYSTEM AIR COOLED HEAT PUMP SCHEDULE

MARK	LOCATION	TYPE	AIRFLOW (CFM)	ESP (IN. WG)	COOLING CAPACITY			HEATING CAPACITY			SPLIT SYSTEM OUTDOOR UNIT		ELECTRICAL DATA				
					NOMINAL SIZE (MBH)	ENTERING AIR (°F)		MIN SEER	NOMINAL SIZE (MBH)	ENTERING AIR (°F)	MIN HPSF	BACKUP HEAT (kW)	MARK	CAPACITY	VOLTAGE	PHASE	MCA
						DB	WB										
HP-1	ATTIC	HORIZONTAL	475	0.5	24	78	65	13	24	68	7.7	10	CU-1	MATCH INDOOR UNIT	240	1	14.7
HP-2	ATTIC	HORIZONTAL	345	0.5	18	78	65	13	18	68	7.7	8	CU-2	MATCH INDOOR UNIT	240	1	12.4

NOTES: 1. PROVIDE WITH PROGRAMMABLE THERMOSTAT.
 2. CONDENSING UNIT PERFORMANCE BASED ON 95°FDB OUTDOOR TEMPERATURE.
 3. PROVIDE WITH COMBINATION MOTOR STARTER/DISCONNECT. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.

FAN SCHEDULE

MARK	TYPE	AIRFLOW (CFM)	ESP (IN WG)	RPM	SONES	DRIVE	ELECTRICAL DATA		
							HP	VOLTAGE	PHASE
EF-1	CEILING MOUNTED	50	0.3	900	1.2	DIRECT	1/12	120	1
EF-2	CEILING MOUNTED	50	0.3	900	1.2	DIRECT	1/12	120	1
EF-3	CEILING MOUNTED	50	0.3	900	1.2	DIRECT	1/12	120	1

NOTES: 1. CONTROLLED BY WALL SWITCH.
 2. PROVIDE WITH BACKDRAFT DAMPER.

ELECTRIC UNIT HEATER SCHEDULE

MARK	LOCATION	TYPE	AIRFLOW (CFM)	ELECTRICAL DATA		
				VOLTAGE	PHASE	KW
CUH-1	MECHANICAL RM	WALL MOUNT FAN FORCED	40	240	1	1
CUH-2	MECHANICAL RM	WALL MOUNT FAN FORCED	40	240	1	1

NOTES: 1. PROVIDE WITH INTEGRAL DISCONNECT.
 2. PROVIDE WITH TAMPERPROOF THERMOSTAT.
 3. PROVIDE WITH SURFACE MOUNTING KIT.

DUCT CONSTRUCTION AND LEAK TEST SCHEDULE

MARK	DUCT PRESSURE CLASS (IN. WG)				SUPPLY		RETURN/EXHAUST/ OUTSIDE AIR		DUCT TEST PRESSURE (IN. WG)
	SUPPLY DUCT	RETURN DUCT	EXHAUST DUCT	OA DUCT	RECTANGULAR		OUTSIDE AIR		
					SEAL CLASS	LEAK CLASS	SEAL CLASS	LEAK CLASS	
HP-1,2	1	-	-	-	A	24	-	-	1
	-	-0.5	-	-	-	-	A	24	0.5
EF-1,2,3	-	-	-1	-	-	-	A	24	1

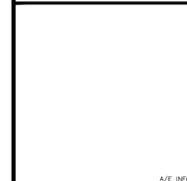
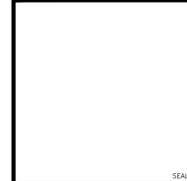
NOTES: 1. TEST IN ACCORDANCE WITH HVAC TESTING/ADJUSTING/BALACING SPECIFICATIONS AND THE PROCESURES IN SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL, 1985 EDITION.

GRILLE, REGISTER, AND DIFFUSER SCHEDULE

MARK	SERVICE	CFM RANGE	MAX SP (IN WG)	NECK/COLLAR SIZE (IN)	MOUNTING/TYPE	MAX. THROW AT 50 FPM (FT)	MAX NC	NOTES
A	SUPPLY	0-65	0.02	6 X 6	SURFACE MOUNT RESIDENTIAL	6	10	1,2
B	SUPPLY	66-120	0.04	8 X 8	SURFACE MOUNT RESIDENTIAL	8	11	1,2
C	SUPPLY	121-185	0.05	10 X 10	SURFACE MOUNT RESIDENTIAL	-	14	1,2
D	RETURN	0-475	0.01	14 X 14	SURFACE MOUNT RESIDENTIAL	-	17	2,3

NOTES: 1. PATTERN: 4-WAY CORE STYLE UNLESS OTHERWISE INDICATED ON DRAWINGS.
 2. ALL ALUMINUM CONSTRUCTION.
 3. FILTER GRILLE WITH 1" THICK FILTER.

NO.	DATE	DESCRIPTION
1	5/11/16	GENERAL REVISIONS



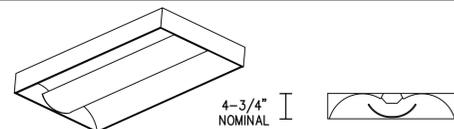
APPROVED
 FOR COMMANDER NAFAC
 ACTIVITY
HERM RAWLINGS
 SATISFACTORY TO DATE MM/DD/YY
 DES JMT | DSJ JMT | CHK TLH
 PM/DM JTL/APK
 BRANCH MANAGER
 CHIEF ENG/ARCH RLV
 FIRE PROTECTION DPS

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 HAMPTON ROADS IPT
 NORFOLK VA
 WALLOPS ISLAND, VA

HOUSING WELCOME CENTER
 MECHANICAL SCHEDULE

SCALE: AS NOTED
 PROJECT NO.: 1366574
 CONSTR. CONTR. NO.
 NAFAC DRAWING NO.: 12708234
 SHEET # 70 OF 70

M-601
 DRAWFORM REVISION: 10 MARCH 2009



LUMINAIRE REQUIREMENTS:

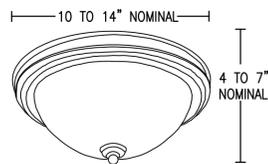
- HOUSING - RUGGED, ONE-PIECE COLD-ROLLED STEEL COATED POLYESTER REFLECTOR ASSEMBLY WITH EMBOSSED FACETS AND PLASMA WELDED CORNERS.
- FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
- DIFFUSER - SINGLE DIFFUSER OF CLEAR IMPACT-MODIFIED ACRYLIC WITH WIDE PHOTOMETRIC DISTRIBUTION.
- ELECTRONIC DRIVER - IES L80 PERFORMANCE FOR 50,000 HOURS MINIMUM. SOUND RATING "A" WITH LESS THAN 20% THD, MAXIMUM 530mA INPUT CURRENT AT 120V, MINIMUM 0.9 POWER FACTOR, INHERENT THERMAL PROTECTION, SHORT-CIRCUIT AND OVERLOAD PROTECTION, AND COMPLIES WITH ANSI C62.41 CATEGORY A TRANSIENT PROTECTION. WHERE INDICATED PROVIDE 0-10V DIMMING DOWN TO AT LEAST 5% LIGHT OUTPUT OR BI-LEVEL DIMMING.
- CERTIFICATION - UL LISTED AND LABELED, CLASS P, TYPE 1 OUTDOOR.
- PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

TYPE A		TYPE B	
NOMINAL 48W INPUT/ WITH 4360 DELIVERED LUMENS		NOMINAL 40W INPUT/ WITH 4026 DELIVERED LUMENS	
RCR	CU	RCR	CU
1	1.03	1	1.03
2	0.90	2	0.90
3	0.79	3	0.79
4	0.70	4	0.70

DELIVERED LUMENS PER WATT - 92 MINIMUM

- EMERGENCY OPTION - WHERE INDICATED, PROVIDE INTEGRAL 1100 LUMEN MINIMUM EMERGENCY BATTERY, INVERTER AND CHARGER.

CENTER BASKET 2' X 4' DIRECT/INDIRECT LED TROFFER



LUMINAIRE REQUIREMENTS:

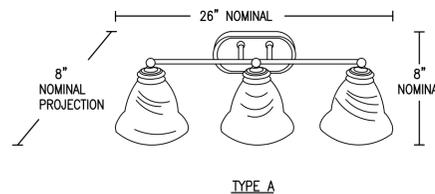
- HOUSING - DECO STYLED ROUND WITH MATCHING CENTER FINIAL. BACK PAN DESIGNED FOR DIRECT MOUNTING TO OUTLET BOX.
- FINISH - ELECTROPLATED OR WHITE HIGH REFLECTANCE POWDER COAT. CHOICE OF WHITE, BRUSHED NICKEL OR BRONZE FINISH.
- DIFFUSER - TRANSLUCENT UV STABILIZED WHITE GLASS DIFFUSER.
- ELECTRONIC DRIVER - IES L80 PERFORMANCE FOR 50,000 HOURS MINIMUM. SOUND RATING "A" WITH LESS THAN 20% THD, MAXIMUM 530mA INPUT CURRENT AT 120V, MINIMUM 0.9 POWER FACTOR, INHERENT THERMAL PROTECTION, SHORT-CIRCUIT AND OVERLOAD PROTECTION, AND COMPLIES WITH ANSI C62.41 CATEGORY A TRANSIENT PROTECTION.
- CERTIFICATION - UL LISTED AND LABELED.
- PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

TYPE A: NOMINAL 10" DIAMETER		TYPE B: NOMINAL 14" DIAMETER	
NOMINAL 20W INPUT WITH 960 DELIVERED LUMENS OUTPUT		NOMINAL 30W INPUT WITH 1500 DELIVERED LUMENS OUTPUT	
RCR	CU	RCR	CU
1	0.97	1	0.98
2	0.83	2	0.84
3	0.72	3	0.73
4	0.63	4	0.64

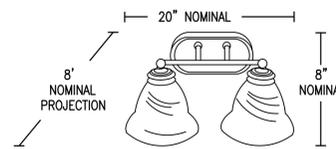
DELIVERED LUMENS PER WATT - 48.0 MINIMUM

DELIVERED LUMENS PER WATT - 52.0 MINIMUM

DECORATIVE BOWL LED



TYPE A

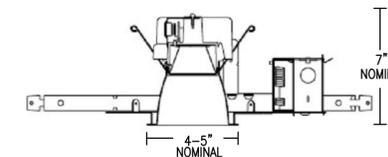


TYPE B

LUMINAIRE REQUIREMENTS:

- HOUSING - DECO STYLED ROUND WITH MATCHING CENTER FINIAL. BACK PAN DESIGNED FOR DIRECT MOUNTING TO OUTLET BOX.
- FINISH - ELECTROPLATED BRUSHED NICKEL.
- DIFFUSER - ETCHED WHITE GLASS DIFFUSER.
- LAMPS - THREE SELF-DRIVER LED 2-PRONG ELECTRONIC GU-24 BASES. PROVIDE WATTAGE(S) AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE. LAMP/DRIVER SHALL DELIVER A MINIMUM OF 65 DELIVERED LUMENS PER WATT AT A COLOR TEMPERATURE OF 3000K. LIFETIME RATING OF 25,000 HOURS MINIMUM.
- CERTIFICATION - UL LISTED AND LABELED.

DECORATIVE LED VANITY



LUMINAIRE REQUIREMENTS:

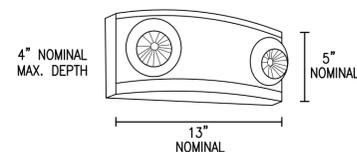
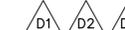
- HOUSING - 16-GUAGE GALVANIZED STEEL CONSTRUCTION. MAXIMUM 1-1/2" CEILING THICKNESS. TELESCOPING MOUNTING BARS MAXIMUM OF 32" AND MINIMUM OF 15". PREINSTALLED, 4" VERTICAL ADJUSTMENT. TOOLLESS ADJUSTMENTS POST INSTALLATION. LIGHT ENGINE DRIVER ACCESSIBLE THROUGH APERTURE.
- OPTICAL SYSTEM - SELF-FLANGED SEMI-SPECULAR. 45° CUTOFF TO SOURCE AND SOURCE IMAGE. POLYCARBONATE LENS INTEGRAL TO LIGHT ENGINE. CLEAR APERTURE.
- ELECTRICAL SYSTEM - IES TESTED TO LM-79 AND LM-80. LM-80 PERFORMANCE FOR 60,000 HOURS MINIMUM. OVERLOAD AND SHORT CIRCUIT PROTECTED. FULLY SERVICEABLE AND UPGRADABLE LENSED LED LIGHT ENGINE. 2.5 SDCM AND 80 CRI. 0-10V DIMMING.
- CERTIFICATION - UL LISTED AND LABELED, WET LOCATION.
- OPTIONS - EMERGENCY BATTERY BACKUP, WALL WASH.
- PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

NOMINAL 12.8W INPUT WITH 1189 DELIVERED LUMENS OUTPUT

RCR	CU
1	1.11
2	1.03
3	0.96
4	0.90

DELIVERED LUMENS PER WATT - 80.0 MINIMUM

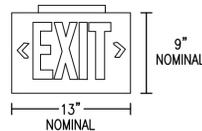
FIXTURE DESCRIPTION



LUMINAIRE REQUIREMENTS:

- HOUSING - UV STABLE, FLAME-RATED, HIGH-IMPACT THERMOPLASTIC IN WHITE OR BLACK TEXTURED FINISH.
- INTERNAL COMPONENTS - FULLY AUTOMATIC, SOLID STATE, CONSTANT VOLTAGE, CURRENT-LIMITED BATTERY CHARGER; MAINTENANCE-FREE LEAD-ACID BATTERY; AND BUILT-IN OVERLOAD AND LOW-VOLTAGE BATTERY PROTECTION.
- EXTERIOR HOUSING INDICATORS - LED AC-ON INDICATOR AND INTEGRAL TEST SWITCH.
- LAMP HEADS - UV STABLE, FLAME RATED POLYCARBONATE THERMOPLASTIC. MR16 HALOGEN LAMPS SHALL BE 5 WATTS, HIGH-OUTPUT OR AS INDICATED IN LIGHTING FIXTURE SCHEDULE.
- MOUNTING - DIRECTLY TO 4" OCTAGONAL OR SQUARE OUTLET BOX.
- CERTIFICATION - UL LISTED AND LABELED. COMPLIES WITH UL 924 AND NFPA 101 REQUIREMENTS. LISTED FOR DAMP LOCATIONS.
- OPTIONS - VOLTMETER, VANDEL-RESISTANT SHIELD, SELF-DIAGNOSTIC/TESTING ELECTRONICS AND WIRE GUARD.

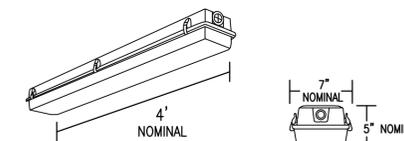
DECORATIVE EMERGENCY LIGHTING UNIT



LUMINAIRE REQUIREMENTS:

- HOUSING - DIE-CAST ALUMINUM OR HIGH-IMPACT, UV-STABILIZED, INJECTION-MOLDED THERMOPLASTIC. SINGLE OR DOUBLE-FACED AS INDICATED.
- FINISH (ON CAST ALUMINUM HOUSING ONLY) - TEXTURED POWDER COAT FINISH OPTIONS INCLUDE WHITE, WHITE WITH BRUSHED ALUMINUM FACE, BLACK, OR BLACK WITH BRUSHED ALUMINUM FACE.
- LETTERS/CHEVRONS - MINIMUM 6" HIGH WITH 3/4" STROKE. RED OR GREEN LETTERS AS INDICATED. PROVIDE CHEVRONS AS INDICATED EITHER LEFT, RIGHT OR BOTH DIRECTIONS AS INDICATED. CHEVRONS PUNCHED OUT THROUGH HOUSING AS REQUIRED.
- EMERGENCY PACK - SOLID-STATE, CONSTANT-CURRENT TYPE BATTERY CHARGER WITH MAINTENANCE-FREE, NICKEL-CADMIUM BATTERY, AC-ON INDICATOR LAMP AND TEST SWITCH.
- MOUNTING - UNIVERSAL MOUNTING KIT FOR CEILING, WALL OR END-OF-FIXTURE MOUNTING.
- ILLUMINATION - PROVIDED BY RED, GREEN OR WHITE HIGH-OUTPUT LEDS INSIDE OF FIXTURE HOUSING. PROVIDE POLYSTYRENE DIFFUSER IN COLOR INDICATED WITH FREQUENCY-MATCHED SILKSCREEN COATING FOR MAXIMUM LED LIGHT OUTPUT.
- CERTIFICATION - UL LISTED AND CERTIFIED FOR DAMP LOCATIONS.

LED EXIT SIGN



LUMINAIRE REQUIREMENTS:

- HOUSING - ONE-PIECE, IMPACT-RESISTANT, FIBERGLASS REINFORCED POLYESTER WITH ENCLOSED COLD-ROLLED STEEL WIREWAY.
- FINISH - STEEL REFLECTOR WITH MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH REFLECTANCE (MINIMUM 85%), BAKED WHITE ENAMEL FINISH.
- LENS - 100% CLEAR ACRYLIC/DR OPTICAL DIFFUSER. STIPPLED INTERIOR SURFACES AND SMOOTH EXTERIOR. CLOSED CELL NEOPRENE GASKET WITH CAPTIVE NONMETALLIC, SNAP ACTION CAM LATCHES TO SECURE LENS TO HOUSING.
- ELECTRONIC DRIVER - IES L80 PERFORMANCE FOR 50,000 HOURS MINIMUM. SOUND RATING "A" WITH LESS THAN 20% THD, MAXIMUM 530mA INPUT CURRENT AT 120V, MINIMUM 0.9 POWER FACTOR, INHERENT THERMAL PROTECTION, SHORT-CIRCUIT AND OVERLOAD PROTECTION, AND COMPLIES WITH ANSI C62.41 CATEGORY A TRANSIENT PROTECTION.
- CERTIFICATION - UL LISTED AND LABELED. SUITABLE FOR DAMP OR WET LOCATION AS DESIGNATED IN LIGHTING FIXTURE SCHEDULE.
- PHOTOMETRICS - MINIMUM VALUE OF COEFFICIENT OF UTILIZATION (CU) AND EFFICIENCY, GIVEN INTERIOR CAVITY REFLECTANCES OF 80-50-20:

NOMINAL 38W INPUT WITH 3426 DELIVERED LUMENS OUTPUT

RCR	CU
1	1.02
2	0.89
3	0.78
4	0.69

DELIVERED LUMENS PER WATT - 85.6 MINIMUM

FIXTURE DESCRIPTION



APPROVED	DATE	5/11/16
FOR COMMANDER NAVFAC	DESCRIPTION	GENERAL REVISIONS
ACTIVITY	HERM RAWLINGS	
SATISFACTORY TO	DATE	MM/DD/YY
DES	MDM	DRW
MDM	CHK	KDL
FM/DM	JTL/APK	
BRANCH MANAGER		
CHEF ENG/ARCH	RLW	
FIRE PROTECTION	DPS	
DEPARTMENT OF THE NAVY	NAVAL FACILITIES ENGINEERING COMMAND	NORFOLK, VA
NAVAL FACILITIES ENGINEERING COMMAND	WALLOPS ISLAND, VA	
HAMPTON ROADS IPT	SURFACE COMBAT SYSTEM CENTER	
	HOUSING WELCOME CENTER	
	LIGHTING PLATES	
SCALE:	AS NOTED	
EPROJCT NO.:	1366574	
CONSTR. CONTR. NO.		
NAVFAC DRAWING NO.	12708239	
SHEET	67	OF 70
E-501		
DRAWING REVISION: 10 MARCH 2009		

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