## FIMS/CAIS RPV Models

## Replacement Plant Value (RPV) Models

| Standard Models (35) |  |  |  |
| :---: | :---: | :---: | :---: |
| Model \# | Model Name | Model \# | Model Name |
| E1 | Housing - Small | E19 | Parking - Below Ground |
| E2 | Housing - Large | E20 | Swimming Pool |
| E3 | Auditorium/Meeting | E21 | Post Office/Mail Handling |
| E4 | Cafeteria/Dining Facility | E22 | Gymnasium |
| E5 | Classroom-Small | E23 | Retail Store |
| E6 | Classroom-Medium | E24 | Security/Badging |
| E7 | Fire Station | E25 | Warehouse/Storage |
| E8 | Garage, Repair | E26 | Bank/Credit Union |
| E9 | Hangar - Service Building | E27 | Visitor Center |
| E10 | Indoor Firing Range | E28 | Office One Story |
| E11 | Laboratory - Office | E29 | Warehouse, Mini |
| E12 | Laundry | E31 | College, Dormitory, 2-3 Story |
| E13 | Library | E33 | Lodge/Guest House |
| E14 | Medical Facility/Clinic | E34 | Apartment 1-3 Story |
| E15 | Office-Small | E35 | Apartment 4-7 Story |
| E16 | Office-Medium | E37 | Hotel 4-7 Story |
| E17 | Office-Large | E39 | Telephone Exchange |
| E18 | Parking - Above Ground |  |  |

Custom Models (66)

| Model \# | Model Name | Model \# | Model Name |
| :---: | :---: | :---: | :---: |
| N1 | Bunkers/Magazines | N46 | Building Sewage Treatment Plant |
| N2 | Communication - Telephone Center | N50 | Office Trailer - Mobile |
| N3 | Computer Center | N51 | Office Trailer - Single Wide |
| N4 | Day Care Center | N52 | Office Trailer - Double Wide |
| N5 | Explosives Handling | N53 | Office Trailer - Multiple 4 units |
| N6 | Hardened Storage | N54 | Office Trailer - 20,000SF |
| N7 | High Bay Facility | N55 | Fire Station 2 Story |
| N8 | Labs-Hard Engineered (80/20) | N56 | Metal Building - Shop 1,200SF |
| N9 | Labs-Biology Environmental (80/20) | N57 | Metal Building - Shop 36,000SF |
| N10 | Labs-Chemistry (80/20) | N58 | Metal Building - Shop 60,000SF |
| N11 | Labs-Physics/Computer (80/20) | N59 | Metal Building - Office 20,000 |
| N12 | Labs-Test/Blast (80/20) | N60 | Metal Building - Office 40,000 |
| N13 | Machine Shop | N61 | Metal Building - Car Port |
| N14 | Maintenance Shops | N62 | Personnel Gate Turnstile |
| N15 | Paint Shop | N63 | Metal Covered Walkways |
| N16 | Process Building with Pool | N64 | Lift Station Small |
| N17 | Process Building-Small | N65 | Lift Station Large |
| N18 | Process Building-Large | N66 | Substation Small |
| N19 | Records Storage/Vault | N67 | Substation Large |
| N21 | Labs-Hard Engineered (50/50) | N68 | Office Cast In Place Concrete 2 Story |
| N22 | Labs-Biology Environmental (50/50) | N69 | Office Cast In Place Concrete 4 Story |
| N23 | Labs-Chemistry (50/50) | N70 | Shop Cast In Place Concrete 24,000SF |
| N24 | Labs- Physics/Computer (50/50) | N71 | Shop Cast In Place Concrete 42,000SF |
| N25 | Labs-Test/Blast (50/50) | N73 | Shaft with Elevator System |
| N30 | Office with Atrium | N74 | Tunnel Nevada Drift |
| N31 | Labs - High Radiation Examination | N75 | Underground Building |
| N32 | Multi-Purpose Facility - Large | N76 | Guard Shack Metal |
| N33 | Real Property Trailer | N77 | Guard Shack Precast |
| N34 | Accelerator - Ring | N78 | Shed 300SF Open |
| N35 | Pumping Stations | N79 | Shed 300SF Open, Electricity |
| N36 | Special Nuclear Materials Component Facility | N80 | Shed 840SF Open |
| N37 | Assembly Cell | N81 | Shed 840SF Open, Electricity |
| N38 | High Explosives Subassembly | N82 | Shed 300SF Enclosed |


| N39 | High Explosives Machining Facility | $\mathbf{N 8 3}$ | Shed 300SF Enclosed, Electricity |
| :--- | :--- | :--- | :--- |
| N40 | Chilled Water Plant- 9,000T Centrifugal | $\mathbf{N 8 4}$ | Shed 840SF Enclosed |
| N41 | Chilled Water Plant- 9,960T Absorption | $\mathbf{N 8 5}$ | Shed 840SF Enclosed, Electricity |
| N42 | Building Steam Power Plant | $\mathbf{N 8 6}$ | Guard Tower Metal |
| N43 | Steam Plant - Coal | $\mathbf{N 8 7}$ | Guard Tower Precast |
| N44 | Steam Plant - Gas | $\mathbf{N 8 8}$ | High Security Nuclear Facility |
| N45 | Steam Plant - Oil |  |  |

## Model Descriptions

| del | Model Name |  | scription |
| :---: | :---: | :---: | :---: |
| E1 | Housing - Small | This model should be applied to small residential uses such as a house or small apartment. The model is based on a small 3-story apartment building with 8,000 square feet of floor area. The structure is light wood frame, with vinyl siding exterior, asphalt shingle roof, and packaged HVAC units. |  |
|  |  | Perimeter (LF): 213 | Location: National Average |
|  |  | Gross Sqft: 8,000 | Floor Height (LF): 10 |
|  |  | No of Floors: 3 |  |
| E2 | Housing - Large | This model should be applied to large residential uses such as a large apartments and dormitories. The model is based on a large 6-story apartment building with 45,000 square feet of floor area. The structure is light steel frame, with brick veneer exterior, built-up membrane roof, and packaged HVAC units. |  |
|  |  | Perimeter (LF): 400 | Location: National Average |
|  |  | Gross Sqft: 45,000 | Floor Height (LF): 10 |
|  |  | No of Floors: 6 |  |
| E3 | Auditorium/Meeting | This model should be applied to uses such as meeting facilities and auditoriums. The model is based on a 1 -story building with 24,000 square feet of floor area. The structure is light steel frame, with brick veneer and CMU backup exterior, built-up membrane roof, and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 640 | Location: National Average |
|  |  | Gross Sqft: 24,000 | Floor Height (LF): 24 |
|  |  | No of Floors: 1 |  |
| E4 | Cafeteria/Dining Facility | This model should be applied to uses such as cafeteria and dining facilities. The model is based on a 1-story building with 8,000 square feet of floor a rea. The structure is light steel frame, with brick veneer and CMU backup exterior, single-ply membrane roof, and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 368 | Location: National Average |
|  |  | Gross Sqft: 8,000 | Floor Height (LF): 12 |
|  |  | No of Floors: 1 |  |


| Model No. | Model Name | Model Description |
| :---: | :---: | :---: |
| E5 | Classroom -Small | This model should be applied to uses such as small size classroom and training facilities. The model is based on a 1-story building with 45,000 square feet of floor area. The structure is steel frame, with brick veneer and CMU backup exterior, built-up membrane roof, and roof-top HVAC units and central air system. |
|  |  | Perimeter (LF): 922 Location: National Average |
|  |  | Gross Sqft: 45,000 $\quad$ Floor Height (LF): 12 |
|  |  | No of Floors: 1 |
| E6 | Classroom - Medium | This model should be applied to uses such as medium size class room and training facilities. The model is based on a 2 -story building with 110,000 square feet of floor area. The structure is steel frame, with brick veneer and CMU backup exterior, built-up membrane roof, and roof-top HVAC units and central air system. |
|  |  | Perimeter (LF): 1,890 Location: National Average |
|  |  | Gross Sqft: 110,000 |
|  |  | No of Floors: 2 |
| E7 | Fire Station | This model should be applied to all fire station facilities. The model is based on a 1 -story building with 8,000 square feet of floor area. The structure is steel frame, with decorative block exterior, built-up membrane roof, and roof-top HVAC units and central airsystem. |
|  |  | Perimeter (LF):386 $\quad$ Location: National Average |
|  |  | Gross Sqft: 8,000 Floor Height (LF): 14 |
|  |  | No of Floors: 1 |
| E8 | Garage, Repair | This model should be applied to vehicle repair type uses and facilities. The model is based on a 1 -story building with 10,000 square feet of floor area. The structure is masonry bearing wall with steel joist, with painted concrete block exterior, built-up membrane roof, and roof-top HVAC units and central air system. |
|  |  | Perimeter (LF): $500 \times$ Location: National Average |
|  |  | Gross Sqft: 10,000 |
|  |  | No of Floors: 1 |
| E9 | Hangar - Service Building | This model should be applied to hanger type uses and large clear-span open area facilities. The model is based on a 1 -story building with 20,000 square feet of floor area. The structure is steel frame, withgalvanized steel siding exterior, single-ply membrane roof, and unit heaters. |
|  |  | Perimeter (LF): $580 \mathrm{Location:} \mathrm{National} \mathrm{Average}$ |
|  |  | Gross Sqft: 20,000 |
|  |  | No of Floors: 1 |






| Model No. | Model Name |  | scription |
| :---: | :---: | :---: | :---: |
| E31 | College, Dormitory, 2-3 story | This model should be applied to residential use as dormitories. The model is based on a 3 -story building with 25,000 square feet of floor area and 12' story height. The structure is face brick with concrete block backup with a rigid concrete frame and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 400 | Location: National Average |
|  |  | Gross Sqft: 25,000 | Floor Height (LF): 12 |
|  |  | No of Floors: 3 |  |
| E33 | Lodge/Guest House | This model should be applied to residential use as a lodge or guest houses. The model is based on a 2-story building with 10,000 square feet of floor area and 10' story height. The structure is a wood frame with cedar beveled siding. |  |
|  |  | Perimeter (LF): 300 | Location: National Average |
|  |  | Gross Sqft: 10,000 | Floor Height (LF): 10 |
|  |  | No of Floors: 2 |  |
| E34 | Apartment 1-3 Story | This model should be applied to residential use as small a partment building. The model is based on a 3 -story building with 22,500 square feet of floor area and 10' story height. The structure is face brick with concrete block back-up with steel joists and chilled water, air cooled condenser system. |  |
|  |  | Perimeter (LF): 400 | Location: National Average |
|  |  | Gross Sqft: 22,500 | Floor Height (LF): 10 |
|  |  | No of Floors: 3 |  |
| E35 | Apartment 4-7 Story | This model should be applied to residential use as a medium apartment building. The model is based on a 6 -story building with 60,000 square feet of floor area and 10 '-4" story height. The structure is face brick with concrete block back-up with steeljoists a nd chilled water, aircooled condenser system. |  |
|  |  | Perimeter (LF): 500 | Location: National Average |
|  |  | Gross Sqft: 60,000 | Floor Height (LF): 10 |
|  |  | No of Floors: 6 |  |
| E37 | Hotel 4-7 Story | This model should be applied for use as a small hotel or similar facility. The model is based on a 6-story building with 135,000 square feet of floor area and 10 ' story height. The structure is face brick with concrete block back-up and a steel frame and oil fired hot water boiler, wall fin Radiationiation and chilled water fan coiled units. |  |
|  |  | Perimeter (LF): 500 | Location: National Average |
|  |  | Gross Sqft: 60,000 | Floor Height (LF): 10 |
|  |  | No of Floors: 6 |  |





| Model No. | Model Name | Model Description |
| :---: | :---: | :---: |
| N15 | Paint Shop | This model should be applied to all paint shop and support type facilities with paint booths. The model is based on a 1 -story building with 20,000 square feet of floor area. The structure is steel frame, with metal siding exterior, metal roof, and unit heaters and packaged $A C$ units. |
|  |  | Perimeter (LF): $600 \mathrm{Location:} \mathrm{National} \mathrm{Average}$ |
|  |  | Gross Sqft: 20,000 $\quad$ Floor Height (LF): 14 |
|  |  | No of Floors: 1 |
| N16 | Process Building with Pool | This model should be applied to all process facilities with cooling ponds for roof storage. The model is based on a 1 -story building with 125,000 square feet of floor area. The structure is cast-in-place concrete, with brick veneer with CMU backup exterior, built-up membrane roof, and a boiler/chiller mechanical system. |
|  |  | Perimeter (LF): 1,650 $\quad$ Location: National Average |
|  |  | Gross Sqft: 125,000 |
|  |  | No of Floors: 1 |
| N17 | Process Building-Small | This model should be applied to all manufacturing and factory type facilities in the size range less than 250,000 SF. The model is based on a 1 -story building with 250,000 square feet of floor area. The structure is tilt-up concrete, with tilt-up concrete exterior, built-up membrane roof, and a boiler/chiller mechanical system. |
|  |  | Perimeter (LF): 2,900 $\quad$ Location: National Average |
|  |  | Gross Sqft: 250,000 |
|  |  | No of Floors: 1 |
| N18 | Process Building-Large | This model should be applied to all manufacturing and factory type facilities in the size range of $250,000-750,000$ SF. The model is based on a 1 -story building with 750,000 square feet of floor area. The structure is tilt-up concrete, with tilt-up concrete exterior, built-up membrane roof, and a boiler/chiller mechanical system. |
|  |  | Perimeter (LF): 4,550 $\quad$ Location: National Average |
|  |  | Gross Sqft: 750,000 $\quad$ Floor Height (LF): 14 |
|  |  | No of Floors: 1 |
| N19 | Records Storage/Vault | This model should be applied to all records storage type facilities with climate controlled space. The model is based on a 2 -story building with 150,000 square feet of floor area. The structure is cast-in-place concrete, with brick veneer with CMU backup exterior, single-ply membrane roof, and roof-top HVAC units and central airsystem. |
|  |  | Perimeter (LF): 1,150 $\quad$ Location: National Average |
|  |  | Gross Sqft: 150,000 $\quad$ Floor Height (LF): 20 |
|  |  | No of Floors: 2 |


| Model No. | Model Name |  | scription |
| :---: | :---: | :---: | :---: |
| N21 | Lab - Hard Engineered (50/50) | This model should be applied to laboratories used for construction and testing of equipment and is based on $50 \%$ lab space and $50 \%$ office. The model is based on a 3 -story building with 100,000 square feet of floor area. The structure is steel frame, with precast concrete exterior, built-up membrane roof, and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 900 | Location: National Average |
|  |  | Gross Sqft: 100,000 | Floor Height (LF): 12 |
|  |  | No of Floors: 3 |  |
| N22 | $\begin{aligned} & \text { Labs - Biology } \\ & \text { Environmental ( } 50 / 50 \text { ) } \end{aligned}$ | This model should be applied to laboratories used for biology and environmental research and is based on $50 \%$ lab space and $50 \%$ office. The model is based on a 3 -story building with 60,000 square feet of floor area. The structure is steel frame, with precast concrete exterior, built-up membrane roof, and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 600 Location: National Average |  |
|  |  | Gross Sqft: 60,000 | Floor Height (LF): 15 |
|  |  | No of Floors: 3 |  |
| N23 | Lab - Chemistry (50/50) | This model should be applied to laboratories used for chemistry research and is based on $50 \%$ lab space and $50 \%$ office. The model is based on a 3story building with 60,000 square feet of floor area. The structure is steel frame, with precast concrete exterior, built-up membrane roof, and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 600 | Location: National Average |
|  |  | Gross Sqft: 60,000 | Floor Height (LF): 15 |
|  |  | No of Floors: 3 |  |
| N24 | Labs - Physics/Computer (50/50) | This model should be applied to laboratories used for physics and computer research and is based on $50 \%$ lab space and $50 \%$ office. The model is based on a 4 -story building with 80,000 square feet of floor area. The structure is steel frame, with precast concrete exterior, built-up membrane roof, and roof-top HVAC units and central airsystem. |  |
|  |  | Perimeter (LF): 600 | Location: National Average |
|  |  | Gross Sqft: 80,000 | Floor Height (LF): 15 |
|  |  | No of Floors: 4 |  |
| N25 | Labs - Test/Blast (50/50) | This model should be applied to laboratories used for heavy testing and explosive blast testing research and is based on $50 \%$ lab space and $50 \%$ office. The model is based on a 3 -story building with 60,000 square feet of floor area. The structure is steel frame, with precast concrete exterior, builtup membrane roof, and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 600 | Location: National Average |
|  |  | Gross Sqft: 60,000 | Floor Height (LF): 17 |
|  |  | No of Floors: 3 |  |



| del No. | Model Name | Model Description |
| :---: | :---: | :---: |
| N33 | Real Property Trailer | The Trailer estimate includes the purchase and installation of a $10^{\prime} \times 50^{\prime}$ construction office trailer. Attached to the trailer are two 10' x 10' entry platforms and stairs. The trailer installation includes a perimeter skirt, power, grounding, fire alarm and sprinklers. |
|  |  | Perimeter (LF): $120 \times$ Location: National Average |
|  |  | Gross Sqft: 500 Floor Height (LF): 8 |
|  |  | No of Floors: 1 |
| N34 | Accelerator - Ring | The estimate includes General Contractor work for providing site, concrete, waterproofing, mechanical \& electrical work for a continuous electron beam accelerator tunnel and supporting stairways. The tunnel is essentially a continual concrete box approximately 4300 LF long with interior dimensions of 14 ' wide by 10 ' high. Dimension vary at access building and stairways. Elevated and slab on gRadiationes vary from 2'-0" to 4'-0" thick. Six access stair locations arealso included. |
|  |  | Perimeter (LF): 4,300 $\quad$ Location: National Average |
|  |  | Gross Sqft: 92,400 |
|  |  | No of Floors: 1 |
| N35 | Pumping Stations | This model should be applied to an 8.1 MGD pump station. The pump station's intakes water from a reservoirand transfers to a municipal system. The model is based on a 2 -story building with 3024 square feet of floor area. The first story is constructed of thickened concrete walls and slabs that support the intake and pump room. The second floor is enclosed in a prefabricated steel building. The second floor supports mechanical \& electrical equipment along with an office and support areas. |
|  |  | Perimeter (LF): 220 Location: National Average |
|  |  | Gross Sqft: 3,024 |
|  |  | No of Floors: 2 |
| N36 | Special Nuclear Materials Component Facility | The Special NuclearMaterialss Component Staging Facility is a 47,987 GSF cast-in-place concrete building. The perimeter is $1,041 \mathrm{LF}$ and the height varies from 27 ft to 11 ft . There is a partial firstfloor of $10,300 \mathrm{SF}$. The majority of the exterior wall is 24 " thick but there is a small area where it is 40 " thick. The interior partitions are a mix of CIP and drywall. The foundation is a 1'-3" concrete mat foundation. There is a low entrance link building comprised of industrial type siding and metal roofing (there is also a PH with the same construction). The finishes are a combination of exposed structure and ACT ceilings with resinous flooring and acoustical wall panels. Heat is brought into the building by existing HP steam service. There are 11AHU's, two packaged dehumidifiers, 11 FCU's and a 130 Ton reciprocating chiller. The building is fully sprinkled. |
|  |  | Perimeter (LF): 1,041 |
|  |  | Gross Sqft: 47,987 |
|  |  | No of Floors: 1 |


| Model No. | Model Name |  | scription |
| :---: | :---: | :---: | :---: |
| N37 | Assembly Cell | This facility comprises of a central single story 27 ft wide corridor \& storage "spine" constructed with 12 " thick reinforced concrete retaining walls with counterforts and a steel roof deck with steel beam supports. Attached to this spine (two from the North and two from the south) are four single story reinforced concrete circular assembly cells each with a centenary roof beneath approximately 20 ft of fill. The cells have blastresistant entry doors. Each assembly cell contains the following reinforced concrete below gRadiatione support spaces; Mech room; tooling staging; SNM staging; corridor; inert parts staging; equipment airlock; personnel corridor. At each end of the spine is a prefabricated building with insulated metal siding approximately $58 f t$ long $x 40 f t$ wide containing the main mechanical and electrical rooms and an entrance ramp also constructed from a prefabricated structure approximately $56 \mathrm{ft} \times 17 \mathrm{ft}$. |  |
|  |  | Perimeter (LF): 2,575 | Location: National Average |
|  |  | Gross Sqft: 36,604 | Floor Height (LF): 18 |
|  |  | No of Floors: 1 |  |
| N38 | High Explosives Subassembly | Single story complex comprising a central reinforced blast-proof concrete core containing 15 assembly bays and one vacuum chamber which are separated by a blast proof sand filled containment area. The central core is buried under compacted earth fill with erosion control. This central core is ringed by a 16 ft wide service corridor constructed from structural steel framing with a metal panel exterior closure \& roofing system. The steel frame is specially reinforced at the entrance of each assembly bay to form a fragment shield. The entire structure is constructed off a nmat foundation. The facility is entered by a pre-fabricated ramp building. |  |
|  |  | Perimeter (LF): 1,521 | Location: National Average |
|  |  | Gross Sqft: 90,222 | Floor Height (LF): 16 |
|  |  | No of Floors: 1 |  |
| N39 | High Explosives Machining Facility | The HE Machining facility is a 49,600 GSF single story facility. The building is divided into the HE Machining facility ( $23,500 \mathrm{GSF}$ ) and the adja cent support area ( $26,100 \mathrm{GSF}$ ). The HE machining facility is comprised of eleven 600 SF lathe/milling rooms and one large equipment room. All the HE rooms are constructed of blast resistant concrete walls \& slabs. The rooms are separated from a HE corridor by blast resistant CIP concrete vestibules and blast resistant doors. Each lathe/milling room contains an exterior door protected with blast resistant exit mazes. The HE machining facility is constructed on a 48" thick mat slab. Support areas and HE corridor are on a 6 " slab. The HE corridor has a precastslab and beams. Support spaces are constructed of a CIP concrete deck with rib joists and concrete columns supported on caissons. The roof is a flat EPDM roof and the exteriors are EIFS finish on reinforced CIP concrete walls. Each lathe/milling room contains a full height removable access panel. Interior partitions are CMU or GWB partitions in the support areas and are blast resistant CIP concrete in the HE facility. There is 6,557 GSF prefab ramp building with metal siding and roofing. |  |
|  |  | Perimeter (LF): 1,033 | Location: National Average |
|  |  | Gross Sqft: 49,600 | Floor Height (LF): 42 |
|  |  | No of Floors: 1 |  |


| Model No. | Model Name |  | scription |
| :---: | :---: | :---: | :---: |
| N40 | Chilled Water Plant 9,000T Centrifugal | Plants used to produce centralized chilled water for installation-wide industrial processes or personal comfort cooling. The design of this model is based on a 9,000 Ton centrifugal chiller plant made up of 6-1500 Ton centrifugal chillers. The model is a 10,000 square foot 1 story building. The structure is steel frame, metal sandwiched exterior, with a metal roof. |  |
|  |  | Perimeter (LF): 450 | Location: National Average |
|  |  | Gross Sqft: 10,000 | Floor Height (LF): 14 |
|  |  | No of Floors: 1 |  |
| N41 | Chilled Water Plant 9,960T Absorption | Plants used to produce centralized chilled water for installation-wide industrial processes or personal comfort cooling. The design of this model is based on a 9,960 Ton steam absorption chiller plant made up of 6-1660 Ton steam absorption chillers. The model is a 10,000 square foot 1 story building. The structure is steel frame, metal sandwiched exterior, with a metal roof. |  |
|  |  | Perimeter (LF): 450 | Location: National Average |
|  |  | Gross Sqft: 10,000 | Floor Height (LF): 14 |
|  |  | No of Floors: 1 |  |
| N42 | Building Steam Power Plant | This model is a base design/shell structure for either a gas or oil fired steam plant. The model is a 4 story, 74,050 steel frame structure with metal siding. The basis of the shell is the N7 Height Bay facility. The user must add the appropriate number and size of the boilers to complete the design of the steam generating facility. |  |
|  |  | Perimeter (LF): 700 | Location: National Average |
|  |  | Gross Sqft: 74,050 | Floor Height (LF): 18 |
|  |  | No of Floors: 4 |  |
| N43 | Steam Plant-Coal | Coal-fired boilers used to produce steam or high temperature water for installation-wide distribution for industrial or personal comfort purposes. The model is a 4 story, 74,050 steel frame structure with metal siding. The basis of the shell is the N7 Height Bay facility. The model includes 250,000 $\mathrm{Lb} / \mathrm{Hr}$ boilers, coal handling systems, chemical treatment systems and all necessary controls and instrumentation. |  |
|  |  | Perimeter (LF): 700 | Location: National Average |
|  |  | Gross Sqft: 74,050 | Floor Height (LF): 18 |
|  |  | No of Floors: 4 |  |


| Model No. | Model Name | Model Description |
| :---: | :---: | :---: |
| N44 | Steam Plant-Gas | Gas-fired boilers used to produce steam or high temperature water for installation-wide distribution for industrial or personal comfort purposes. The model is a 4 story 74,050 , steel frame structure with metalsiding. The basis of the shell is the N7 Height Bay facility. The model includes 250,000 $\mathrm{Lb} / \mathrm{Hr}$ boilers, gas piping systems, chemical treatment systems and all necessary controls and instrumentation. |
|  |  | Perimeter (LF): 700 $\quad$ Location: National Average |
|  |  | Gross Sqft: 74,050 $\quad$ Floor Height (LF): 18 |
|  |  | No of Floors:4 |
| N45 | Steam Plant-Oil | Oil-fired boilers used to produce steam or high temperature water for installation-wide distribution for industrial or personal comfort purposes. The model is a 4 story, 74,050 steel frame structure with metal siding. The basis of the shell is the N7 Height Bay facility. The model includes 250,000 $\mathrm{Lb} / \mathrm{Hr}$ boilers, oil storage tanks, chemical treatment systems and all necessary controls and instrumentation. |
|  |  | Perimeter (LF): 700 $\quad$ Location: National Average |
|  |  | Gross Sqft: 74,050 $\quad$ Floor Height (LF): 18 |
|  |  | No of Floors:4 |
| N46 | Building Sewage Treatment Plant | This model is a generic design plant shell that can be used for primary, secondary and tertiary sewage treatment. The model must be modified to include the appropriate treatment equipment and building square footage, perimeter and story height. The model is a 1 story structure with metal siding. |
|  |  | Perimeter (LF): 1,150 $\quad$ Location: National Average |
|  |  | Gross Sqft: 75,000 $\quad$ Floor Height (LF): 14 |
|  |  | No of Floors: 1 |
| N50 | Office Trailer - Mobile | This model includes the purchase and installation of a $10^{\prime} \times 50^{\prime}$ construction office trailer. Attached to the trailer are two 10 x 10 ' entry platforms and stairs. The trailer installation includes a perimeter skirt, power, grounding, fire alarm and sprinklers and through the wall heat pumps. |
|  |  | Perimeter (LF): $92 \times$ Location: National Average |
|  |  | Gross Sqft:360 $\quad$ Floor Height (LF): 8 |
|  |  | No of Floors: 1 |
| N51 | Office Trailer-Single Wide | This model includes the purchase and installation of a 10 ' x 50' modular office trailer. Attached to the trailer are two $10^{\prime} \times 10^{\prime}$ entry platforms and stairs. The installation includes a perimeter skirt, power, grounding, fire alarm and sprinklers and through the wall heat pumps. |
|  |  | Perimeter (LF): 100 Location: National Average |
|  |  | Gross Sqft:420 $\quad$ Floor Height (LF): 8 |
|  |  | No of Floors: 1 |





| Model No. | Model Name |  | scription |
| :---: | :---: | :---: | :---: |
| N68 | Office Cast In Place Concrete 2 Story | This model should be applied to office facilities less than $36,000 \mathrm{SF}$. The model is based on a 2 -story building with 20,000 square feet of floor area. The structure is Cast in Place with precast wall panels, single-ply membrane roof, and roof-top HVAC units and centralair system. |  |
|  |  | Perimeter (LF): 400 | Location: National Average |
|  |  | Gross Sqft: 20,000 | Floor Height (LF): 12 |
|  |  | No of Floors: 2 |  |
| N69 | Office Cast In Place Concrete 4 Story | This model should be applied to office facilities less than $80,000 \mathrm{SF}$. The model is based on a 4 -story building with 40,000 square feet of floor area. The structure is Cast in Place with precast wall panels, single-ply membrane roof, and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 400 | Location: National Average |
|  |  | Gross Sqft: 40,000 | Floor Height (LF): 12 |
|  |  | No of Floors: 4 |  |
| N70 | Shop Cast In Place Concrete 24,000SF | This model should be applied to shop and support facilities less than 28,000 SF. The model is based on a 1 -story building with 24,000 square feet of floor area. The structure is Cast in Place with precast wall panels, single-ply membrane roof, and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 620 | Location: National Average |
|  |  | Gross Sqft: 24,000 | Floor Height (LF): 16 |
|  |  | No of Floors: 1 |  |
| N71 | Shop Cast In Place Concrete 42,000SF | This model should be applied to shop and support facilities less than 50,000 SF. The model is based on a 1 -story building with 42,000 square feet of floor area. The structure is Cast in Place with precast wall panels, single-ply membrane roof, and roof-top HVAC units and central air system. |  |
|  |  | Perimeter (LF): 820 | Location: National Average |
|  |  | Gross Sqft: 42,000 | Floor Height (LF): 16 |
|  |  | No of Floors: 1 |  |
| N73 | Shaft with Elevator System | This model should be applied to elevator shafts. The model is based on a 20 foot diameter shaft with ventilation. |  |
|  |  | Perimeter (LF): 78 | Location: National Average |
|  |  | Gross Sqft: 19,000 | Floor Height (LF): 20 |
|  |  | No of Floors: 50 |  |
| N74 | Tunnel Nevada Drift | This model should be applied to tunnel and drifts. The model is based on a 220,000 square feet of floor area. The structure is reinforced concrete. Ventilation provided via shaft and elevator system. |  |
|  |  | Perimeter (LF): 20,044 | Location: National Average |
|  |  | Gross Sqft: 220,000 | Floor Height (LF): 17 |
|  |  | No of Floors: 1 |  |


| Model No. | Model Name |  | scription |
| :---: | :---: | :---: | :---: |
| N75 | Underground Building | This model should be applied to office and support facilities less than 70,000 SF. The model is based on a 2 -story underground building with 40,000 square feet of floor area. The structure is Cast in Place structure. HVAC systems must be added by the user. |  |
|  |  | Perimeter (LF): 570 | Location: National Average |
|  |  | Gross Sqft: 40,000 | Floor Height (LF): 10 |
|  |  | No of Floors: 2 |  |
| N76 | Guard Shack Metal | This model should be applied to guard shacks made primarily of metal. The model is based upon a 1 -story building with 200 square feet of floor area. The structure is metal studs with metal panel walls and roof. |  |
|  |  | Perimeter (LF): 60 | Location: National Average |
|  |  | Gross Sqft: 200 | Floor Height (LF): 8 |
|  |  | No of Floors: 1 |  |
| N77 | Guard Shack Precast | This model should be applied to guard shacks made primarily of precast concrete. The model is basedupon a 1 -story building with 200 square feet of floor area. The structure is precast concrete wall panels and precast concrete roof panels. |  |
|  |  | Perimeter (LF): 60 | Location: National Average |
|  |  | Gross Sqft: 200 | Floor Height (LF): 8 |
|  |  | No of Floors: 1 |  |
| N78 | Shed 300SF Open | This model should be applied to storage sheds with open sides. The model is based upon a 1 story building with 300 square feet of floor area. The structure is tube steel columns and headers with metal roof panels on light gauge framing. |  |
|  |  | Perimeter (LF): 74 | Location: National Average |
|  |  | Gross Sqft: 300 | Floor Height (LF): 8 |
|  |  | No of Floors: 1 |  |
| N79 | Shed 300SF Open, Electricity | This model should be applied to storage sheds with open sides and electrical service. The model is based upon a 1 story building with 300 square feet of floor area. The structure is tube steel columns and headers with metal roof panels on light gauge framing. |  |
|  |  | Perimeter (LF): 74 | Location: National Average |
|  |  | Gross Sqft: 300 | Floor Height (LF): 8 |
|  |  | No of Floors: 1 |  |



| Model No. | Model Name |  | scription |
| :---: | :---: | :---: | :---: |
| N85 | Shed 840SF Enclosed, Electricity | This model should be applied to storage sheds with enclosed sides and electrical service. The model is based upon a 1 story building with 840 square feet of floor area. The structure is metal studs with metal panel walls and roof. |  |
|  |  | Perimeter (LF): 120 | Location: National Average |
|  |  | Gross Sqft: 840 | Floor Height (LF): 8 |
|  |  | No of Floors: 1 |  |
| N86 | Guard Tower Metal | This model should be applied to Guard Towers made primarily of metal. The model is based upon a structure that has 200 square feet of floor area. The structure is made of structural steelshapes and headers, with an enclosed space. |  |
|  |  | Perimeter (LF): 60 | Location: National Average |
|  |  | Gross Sqft: 200 | Floor Height (LF): 8 |
|  |  | No of Floors: 1 |  |
| N87 | Guard Tower Precast | This model should be applied to Guard Towers made primarily of precast concrete. The model is basedupon a structure that has 200 square feet of floor area. The structure is made of structuralsteel shapes and headers, with an enclosed precast space. |  |
|  |  | Perimeter (LF): 60 | Location: National Average |
|  |  | Gross Sqft: 200 | Floor Height (LF): 8 |
|  |  | No of Floors: 1 |  |
| N88 | High Security Nuclear Facility | This model should be applied to High Security Facilities. The model is based upon a 3 -story structure that has 92500 square feet of floor area. The structure is steel reinforced concrete with multiple exterior closure types. |  |
|  |  | Perimeter (LF): 702 | Location: National Average |
|  |  | Gross Sqft: 92500 | Floor Height (LF): 12 |
|  |  | No of Floors: 3 |  |

