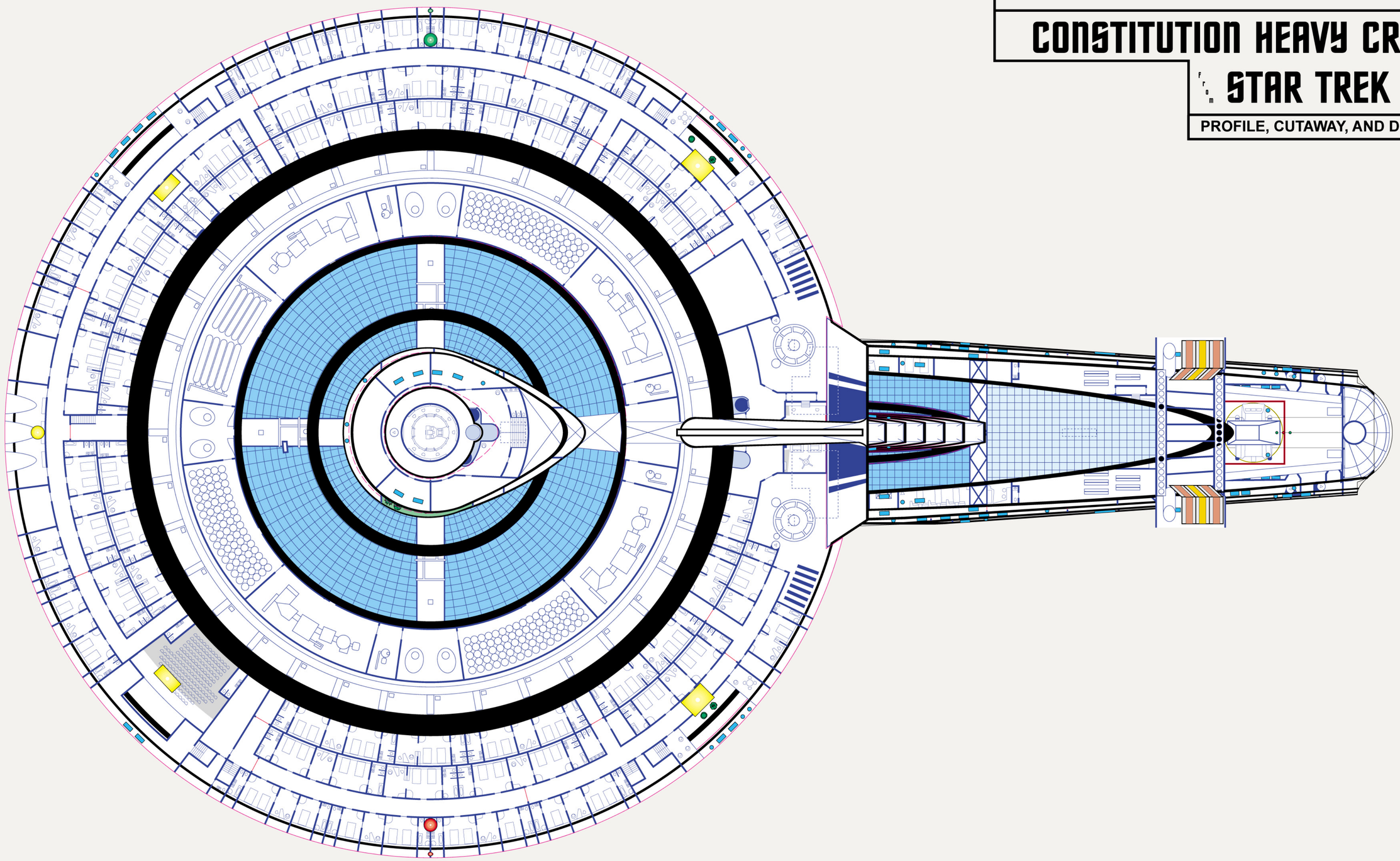
U.S.S. ENTERPRISE

CONSTITUTION HEAVY CRUISER

from STAR TREK (TOS)

PROFILE, CUTAWAY, AND DECK PLANS



DRAWN BY: Jim Botaitis

U.S.S. ENTERPRISE From STAR TREK (TOS)

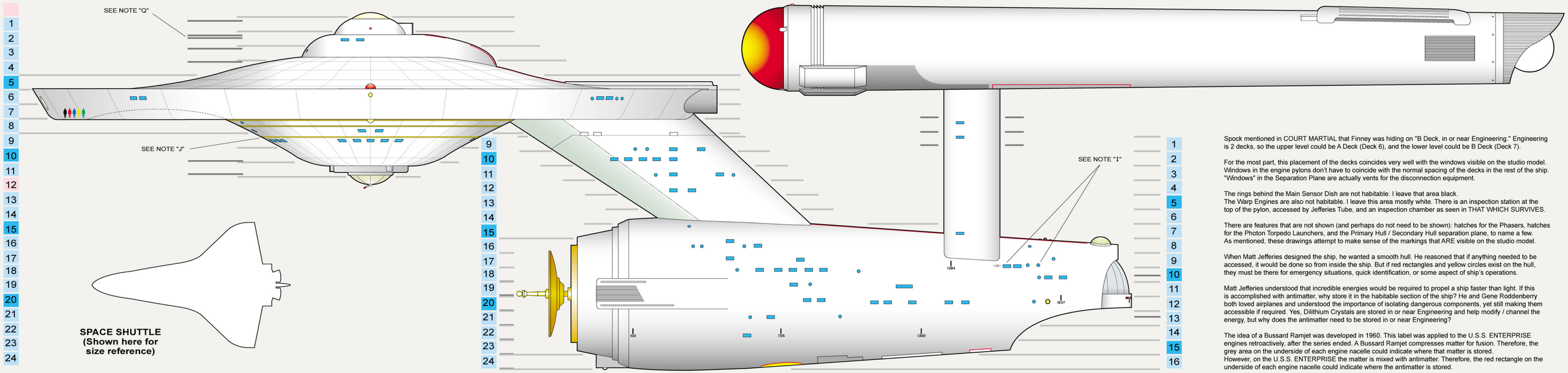
LAYOUT: PORT PROFILE

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0 5 10 15 20
METERS



SPACE SHUTTLE (Shown here for size reference)

CONSTRUCTION NOTES

This project - developed in the year 2020 - was driven by 3 criteria: (1) the details visible on the 11-foot-2.08-inch (3.4-meter) studio model, (2) the info in the Writer's Guide - available in the book THE MAKING OF STAR TREK (TMoST) - and, (3) all the details seen (or mentioned) in the original 79 episodes.

Many other people have made such drawings: Matt Jefferies, Franz Joseph, David Shaw, Art Colvin, Aridas Sofia, Charles Casimiro, Alan Sinclair, and Agatha Chamberlain, to name a few. I did compare my drawings to theirs, but developed my own drawings, mostly based on photos of the studio model taken at the Smithsonian Museum during their restoration of the studio model.

As I progressed I kept thinking: What facts do I need to "prove"? Are references and citations needed? How well should I document my steps? How exact do I need to be when matching the details seen in each episode? For example, door locations and colours, corridor radii, movement of characters, etc?

So, again, here are the 3 criteria that governed this project:

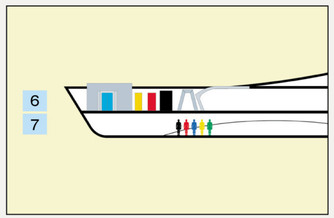
1.
The dimensions and details of the studio model are well known. It is 11 feet 2.08 inches (3.4 meters) long. The studio model was delivered with asymmetric details, then a few changes were requested and more detail was added on the starboard side. Yes, the model was asymmetric from the start. The port side has wires and holes for all the lighting. The rectangular housing beside the deflector dish on the port side is missing. The details on the inner faces of the engine nacelles do not match. This asymmetry can be attributed to the technology available at the time and does not reflect the intended design. However, the window pattern was also asymmetric from the start. This was intentional. See the photo on Page 9. The arc of windows across the front IS asymmetric. It cannot have started symmetric. The requested changes (mentioned above) made the overall window pattern even more asymmetric. Hatches were added in an asymmetric pattern. Why try to force symmetry on the hatches or the windows?
Symmetry is not representative of real ships, planes, etc. Symmetry suggests a scale model is being used. Symmetry is boring.

(The Refit ENTERPRISE has asymmetric windows, as does the ENTERPRISE A. The ENTERPRISE D has asymmetric hangar bays. The ENTERPRISE E has an asymmetric lifeboat distribution.)

2.
The book TMoST describes the U.S.S. ENTERPRISE as being 947 feet (288.6 meters) long. This makes the studio model 1/85 scale. It states the Primary Hull has 11 decks, the Secondary Hull has 16 decks, and it also describes what is located on each deck. For example, the Bridge is on Deck 1, Officer's Quarters are on Deck 5, the ship's Laundry and Food Preparation area are on Deck 8, Phaser Control is on Deck 11, and so on.

3.
What we see of the ship's interior in the episodes were sets built and filmed at DESILU STUDIOS. I found images of the set plans and re-sized them to 1/350 scale. The set walls were 10 feet (3.05 meters) high. This does not allow for 11 decks to fit in the Primary Hull. However, almost all other set details do fit when drawn to 1/350 scale. I chose 1/350 scale because models of the U.S.S. ENTERPRISE (as well as many other naval vessels) exist in that scale.

I started at the edge of the primary hull (see image below), where the height of 2 decks, the thickness of 1 floor, and the thickness of 2 hulls have to fit in this part of the saucer.



In CHARLIE X we saw how thick the walls are and also what is in the walls. The DESILU plans show walls that are 1 foot (0.3 meters) thick and sometimes even thicker. I decided to make all walls, decks, and hulls 1 foot thick, never thinner. In a few places, the walls are even thicker.

This leaves a ceiling height of 8 feet (2.44 meters) for each level.

The one set piece (reminiscent of a ship's rib - often seen in the Briefing Room) does not quite fit. However, all the other details (doors, openings, etc) do fit (see image at left). I consider the trapezoidal openings to be Isolation Doors ... in case of hull breaches, damage control, intruder alerts, etc.

In my profile drawing (at the top of this page) the light grey horizontal lines show the initial deck locations. They represent a constant 8 foot ceiling throughout the entire ship. I built them upwards and downwards from my starting point, Deck 6 and 7. However, this makes the Bridge too high, and Phaser Control too low.

The dark grey horizontal lines show the adjusted deck locations. This works well for the Primary Hull. The undercut on the Primary Hull affects Deck 7. This will affect the floor of Main (Impulse) Engineering. More on this later (see NOTE "O" and see the notes for Deck 7).

For the Secondary Hull, all the grey lines were shifted down so that the lowest one is aligned with the bottom of the hull. The resultant space between Deck 8 and Deck 9 becomes the "Separation Plane". Dialogue in THE APPLE suggests that the Primary Hull can disconnect from the Secondary Hull. This space is where I placed the Rear Landing Leg. The two triangular patterns on the underside of the Primary Hull are the Front Landing Legs.

Since disconnection equipment is located on Deck 8 and Deck 9, it makes sense to keep this area clear of crew and difficult to access except by authorized personnel. Therefore, Deck 8 and Deck 9 are accessible only by ladder and by Jefferies Tube.

The lowermost decks of the Secondary Hull were then shifted up slightly (dark grey lines) so that the grey line representing Deck 19 lines up with the Hangar Bay deck which can be seen outside of the Hangar Bay doors. This adjustment also allows a bit more headroom on Deck 20, necessary because of the recessed floor of the Secondary Bridge (located at the front of Deck 19). A final adjustment was made to two of the decks (but only at the aft end of the Secondary Hull) so that the Observation Gallery and Shuttlecraft Maintenance fit better.

If disconnection occurs, the decks of the Secondary Hull could be numbered as shown to the right of the profile drawing (above right on this page). This allows the Captain's Quarters to be located on Deck 12 (as mentioned in MUDD'S WOMEN). These could be his alternate quarters; his main quarters are on Deck 5, as stated in TMoST.

Spock mentioned in COURT MARTIAL that Finney was hiding on "B Deck, in or near Engineering." Engineering is 2 decks, so the upper level could be A Deck (Deck 6), and the lower level could be B Deck (Deck 7).

For the most part, this placement of the decks coincides very well with the windows visible on the studio model. Windows in the engine pylons don't have to coincide with the normal spacing of the decks in the rest of the ship. "Windows" in the Separation Plane are actually vents for the disconnection equipment.

The rings behind the Main Sensor Dish are not habitable. I leave that area black.
The Warp Engines are also not habitable. I leave this area mostly white. There is an inspection station at the top of the pylon, accessed by Jefferies Tube, and an inspection chamber as seen in THAT WHICH SURVIVES.

There are features that are not shown (and perhaps do not need to be shown): hatches for the Phasers, hatches for the Photon Torpedo Launchers, and the Primary Hull / Secondary Hull separation plane, to name a few. As mentioned, these drawings attempt to make sense of the markings that ARE visible on the studio model.

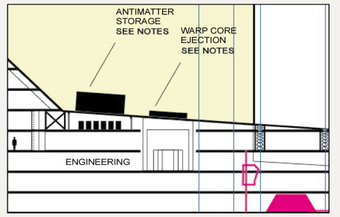
When Matt Jefferies designed the ship, he wanted a smooth hull. He reasoned that if anything needed to be accessed, it would be done so from inside the ship. But if red rectangles and yellow circles exist on the hull, they must be there for emergency situations, quick identification, or some aspect of ship's operations.

Matt Jefferies understood that incredible energies would be required to propel a ship faster than light. If this is accomplished with antimatter, why store it in the habitable section of the ship? He and Gene Roddenberry both loved airplanes and understood the importance of isolating dangerous components, yet still making them accessible if required. Yes, Dilithium Crystals are stored in or near Engineering and help modify / channel the energy, but why does the antimatter need to be stored in or near Engineering?

The idea of a Bussard Ramjet was developed in 1960. This label was applied to the U.S.S. ENTERPRISE engines retroactively, after the series ended. A Bussard Ramjet compresses matter for fusion. Therefore, the grey area on the underside of each engine nacelle could indicate where that matter is stored. However, on the U.S.S. ENTERPRISE the matter is mixed with antimatter. Therefore, the red rectangle on the underside of each engine nacelle could indicate where the antimatter is stored.

That red rectangle could be an access hatch, or an "Emergency Jettison" hatch. Dialogue in various episodes corroborates the idea of disengaging, discarding, or jettisoning the warp engine nacelles. Dialogue also mentions ejecting the antimatter pod. If antimatter was jettisoned from the engine nacelles, it would be aimed outwards and downwards, away from the habitable areas of the ship.

The idea of a "Warp Core" came along much later, when the ENTERPRISE was refit for the movies. Will Decker told Kirk, "This is an almost totally new ENTERPRISE." The idea of "ejecting a Warp Core" was introduced in STAR TREK THE NEXT GENERATION. Why try to "retcon" these concepts?



If there is a Warp Core in Engineering on a ship of this era, and if it had to be ejected, would that ejection be upwards or downwards? Also, does that have any bearing with where the antimatter would be stored?

So, where is Engineering located, and where would that place the Warp Core and the antimatter? If Engineering is at the bottom of the Secondary Hull (so that Warp Core ejection is far from everything else) this places it too far away from the engines. If Engineering is far forward in the Secondary Hull, the Cargo Holds and Crew's Quarters prevent downward ejection and the dorsal decks prevent upward ejection. If Engineering is in the middle of the Secondary Hull, downward ejection interferes with Shuttlecraft Maintenance and with Cargo Operations. Upward ejection might be possible from that location.

Therefore, an early version of my profile drawing (see image at left) showed a Warp Core with an ejection hatch above. It also showed antimatter storage along the spine. However, I prefer the logic and safety of placing antimatter in the engine nacelles, away from the habitable section of the ship.

The huge pipes / conduits (visible through the grille behind Engineering) was a set built with forced perspective to suggest immense size. The angled pipes (suggesting they continue up the pylons) makes it logical to fit this between the engine pylons. Thus, Engineering is ahead of and above the Hangar Bay.

Regarding the antimatter:
CASE 1. Collect matter in the engine nacelles, send the matter to Engineering, mix it (in the habitable section of the ship) with antimatter (stored in the habitable section of the ship!), pass the energy through the Dilithium Crystals, then send the energy up to the engine nacelles to create the warp field.
CASE 2. Collect matter in the engine nacelles, mix it (in the engine nacelles) with antimatter (stored in the engine nacelles), send the energy to Engineering, pass the energy through the Dilithium Crystals, then send the energy up to the engine nacelles to create the warp field.

In both cases, energy is being transmitted. There is no need to move the fuel too (as in Case 1). Case 1 is unnecessarily complicated.
Case 2 is simpler, and as a bonus, the antimatter is kept away from the habitable section of the ship (as Matt and Gene intended).

U.S.S. ENTERPRISE From STAR TREK (TOS)

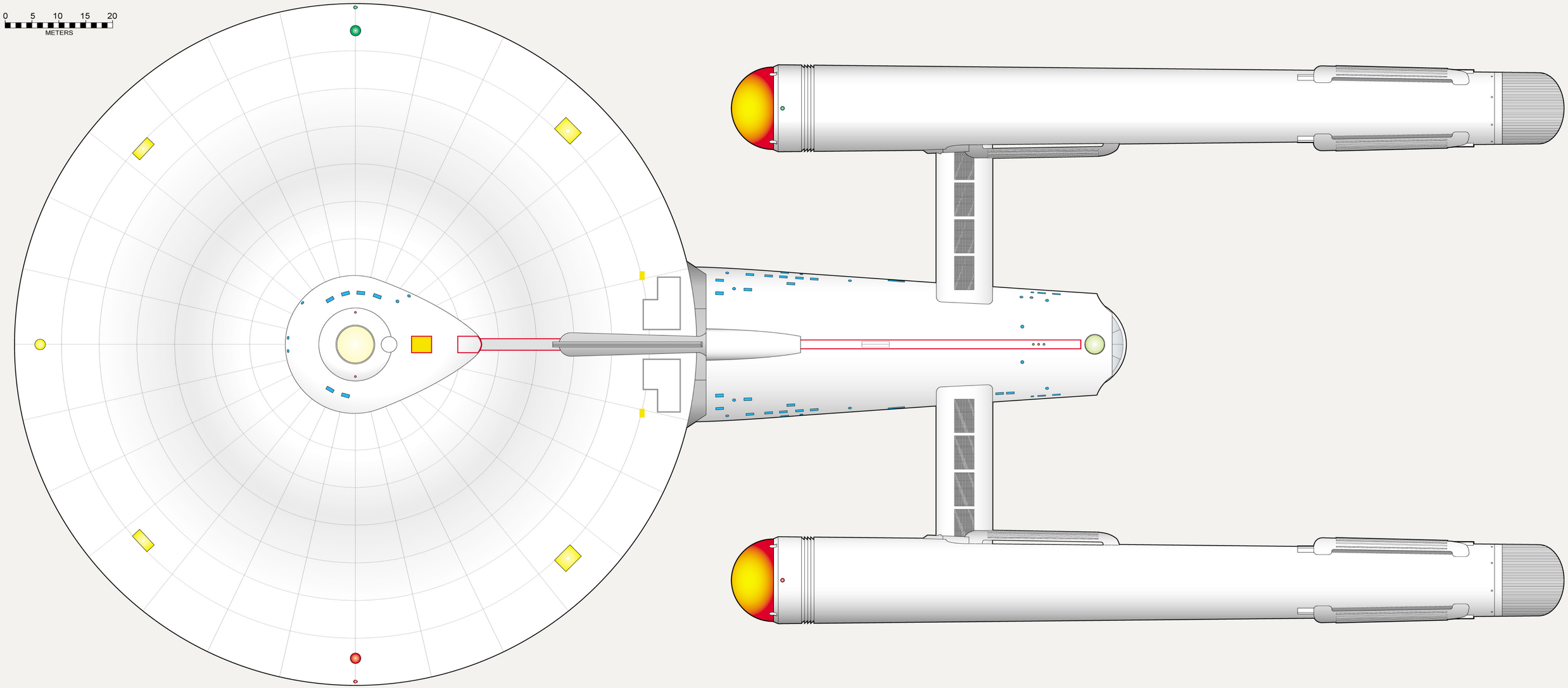
LAYOUT: TOP

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0 5 10 15 20
METERS



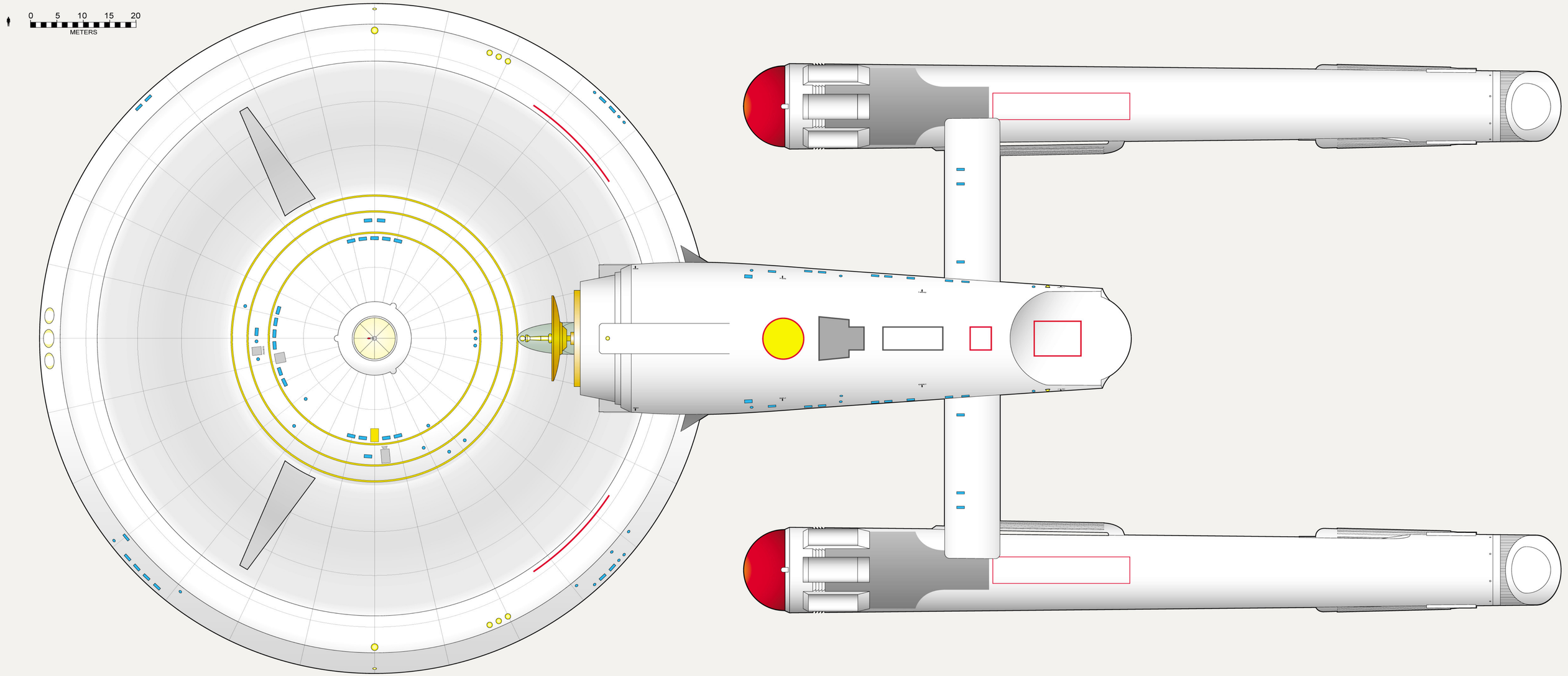
U.S.S. ENTERPRISE From STAR TREK (TOS)

LAYOUT: BOTTOM

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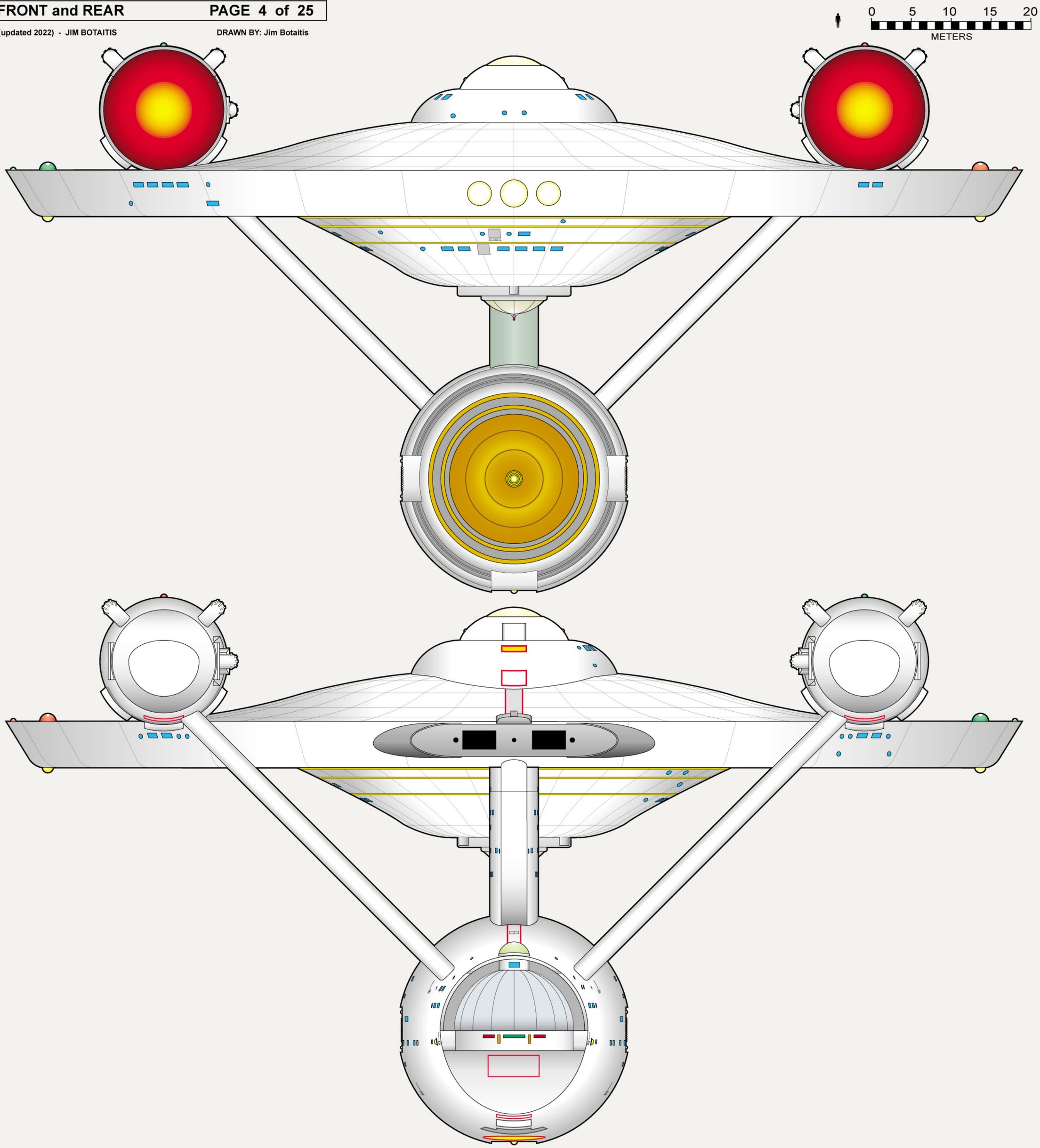
U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: FRONT and REAR **PAGE 4 of 25**

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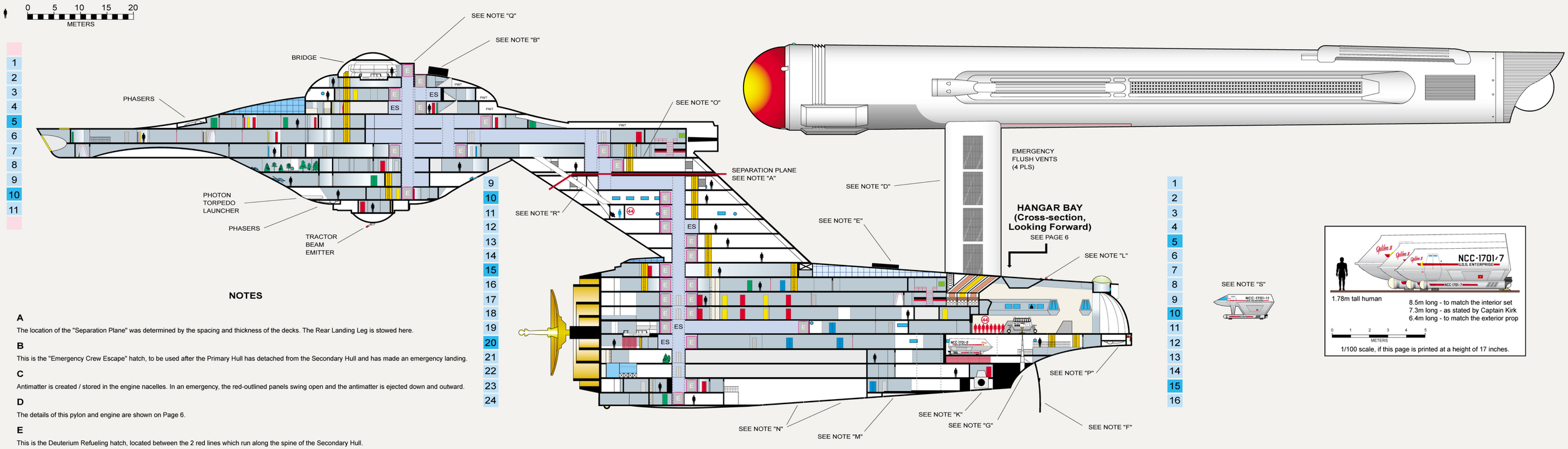
U.S.S. ENTERPRISE From STAR TREK (TOS)

LAYOUT: PORT CUTAWAY — **PAGE 5 of 25**

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NOTES

A

The location of the "Separation Plane" was determined by the spacing and thickness of the decks. The Rear Landing Leg is stowed here.

B

This is the "Emergency Crew Escape" hatch, to be used after the Primary Hull has detached from the Secondary Hull and has made an emergency landing.

C

Antimatter is created / stored in the engine nacelles. In an emergency, the red-outlined panels swing open and the antimatter is ejected down and outward.

D

The details of this pylon and engine are shown on Page 6.

E

This is the Deuterium Refueling hatch, located between the 2 red lines which run along the spine of the Secondary Hull.

F

This is the "Shuttle Maintenance Bay" hatch, for loading and unloading Shuttlecraft components, fuel, etc.

G

The Shuttlecraft Lift is not necessarily hydraulically operated. This symbol could also represent anti-gravity equipment.

H

The Matter-Antimatter Reaction Chamber is heavily shielded and recessed within the Warp Engine nacelle.

I

The 2 round windows visible on the starboard side of the model fit the location of the Observation Gallery. However, 2 rectangular windows are visible in the Observation Gallery in THE CONSCIENCE OF THE KING. Therefore, they must be on the port side.

J

These 3 pale gold-coloured recessed rings are part of the Tractor Beam system. See Page 17 for more information.

K

The Ion Storm Pod is located at the rear-most hatch on the underside of the Secondary Hull.

L

These 3 lights could be flight control lights or Tractor Beam status lights for Shuttlecraft Operations, or formation lights for the ship.

M

The long rectangular hatch on the underside of the Secondary Hull allows access to the Cargo Lift Machinery and to the Cargo Transporter.

N

These 2 hatches are for oversized cargo. They open into a large cargo space which has its own airlock.

O

The undercut on the bottom of the Primary Hull affects Deck 7. However, the connection to the dorsal decks allows Deck 7 to be flat at this location. Therefore, the floor in Main (Impulse) Engineering will be flat, except along the left and right edge. This is shown on Deck 7 and discussed on Page 18.

P

This is the "Aft Phaser" as mentioned in ARENA. It was specifically singular, not the generic plural "phasers" mentioned in many other episodes.

Q

The Bridge was positioned very low to allow a turbo-elevator to reach it. This (and the Bridge's recessed floor) makes much of Deck 2 unusable. See Page 7 for more info.

R

These stairs help evacuate the Secondary Hull prior to Primary Hull separation. Being on the port side of the ship, they would not normally be visible in this view, but their location is shown for clarification. See Page 17 for more info.

S

The Shuttlecraft used here measure 28 feet (8.5 meters) in length, as suggested by the size of the interior set. The studio prop was 21 feet (6.4 meters) which was about 3/4 of the intended size. Kirk mentioned the Shuttlecraft is 24 feet (7.3 meters) long. A larger Shuttlecraft requires a larger Turntable / Lift. This moves the front wall of the Hangar Bay forward. Why? As seen in JOURNEY TO BABEL, there needs to be enough space for 8 guards to stand between the Shuttlecraft and the front wall of the Hangar Bay. Also, a larger Shuttlecraft requires the Lift to reach down 2 decks because a larger Shuttlecraft is taller than 8 feet. However, the fantail undercut limits the amount of vertical movement. A standard complement of 4 Shuttlecraft (as stated in THE OMEGA GLORY) does still fit.

Special thanks to Dana E. Lubich for permission to display the Cargo Shuttle design which Dana developed 30 years ago.

GENERAL NOTES

Red numbers within a red circle are callouts to specific episodes. A list of all the episodes is on the last page. If I have forgotten specific scenes or details, please let me know.

Are the wide steps in Engineering considered to be "stairs"? Are the steps on the Bridge considered to be "stairs"?
Perhaps stairs do not appear in any episodes, but that does not mean they do not exist in the ship. Therefore:
1. After hull disconnection and an emergency landing, stairs on Decks 4, 3, and 2 lead up to the hatch, thus allowing the crew to leave the ship quickly.
2. For the sake of Emergency Evacuation of the Secondary Hull prior to Primary Hull disconnection, stairs lead up from Dorsal Deck 10 to Deck 7.
3. Each of the 3 Recreation Rooms on Deck 7 have balconies. Those balconies have stairs that lead down to their respective Recreation Rooms.
4. Beside each of those balconies are other stairs to serve each quadrant of the Crew's Quarters on Deck 7; those stairs lead up to Deck 6.
5. The arc of the Crew's Quarters in the forward quadrant of Deck 7 is very long, so stairs were added in the center of that arc; those stairs lead up to Deck 6.
6. Stairs were added to access Shuttle Maintenance and the Observation Gallery; these 2 decks were shifted up slightly, as mentioned on the previous page.
Aside from these stairs, the rectangular ladders (within rectangular alcoves) and the triangular ladders (within circular alcoves) supplement the turbo-elevator system. If that system fails, or in case of some other emergency, ladders alone would not be efficient; it is easier to carry something up stairs than up a ladder.

More notes relevant to each deck appear on the following pages.

Contradictions and errors exist within the episodes. I am sure 100% continuity is not possible.

I hope these pages provide you with some pleasure, information, and ideas for contemplation / consideration.

If I missed something, please let me know.

Jim Botaitis
jbot@rogers.com
June 2020 / revised September 2021

U.S.S. ENTERPRISE From STAR TREK (TOS)

LAYOUT: STARBOARD ENGINE PAGE 6 of 25

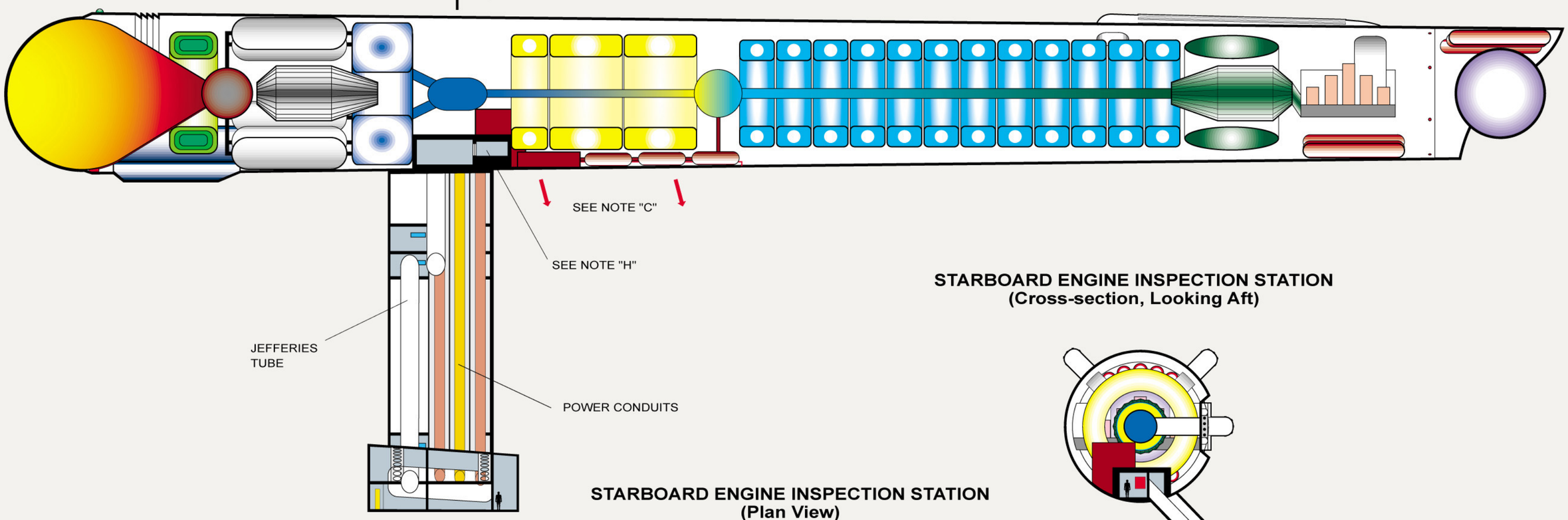
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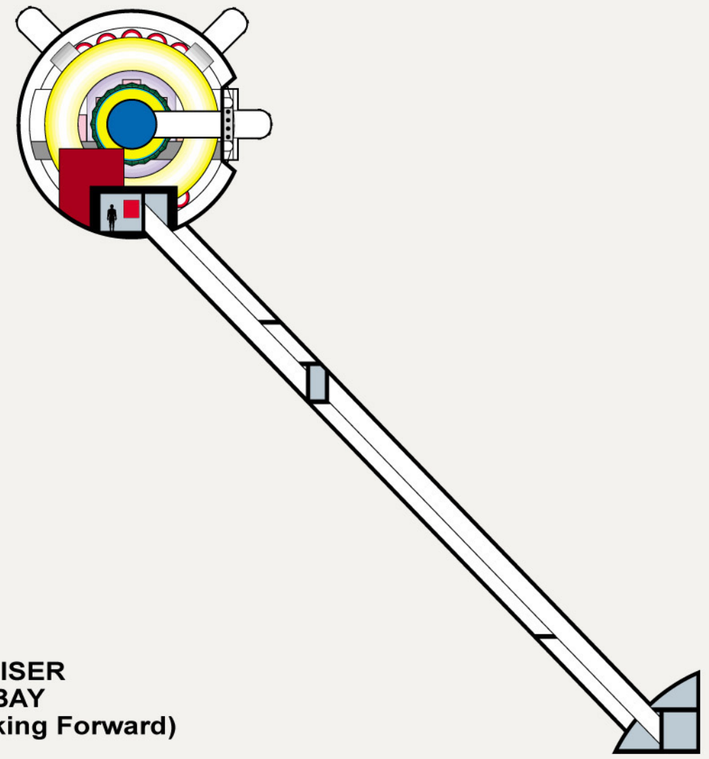
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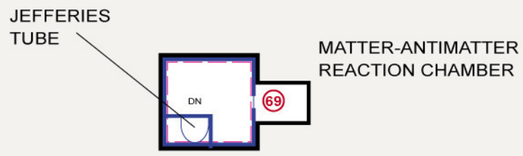
STARBOARD ENGINE INSPECTION STATION
(Cross-section, Looking Aft)



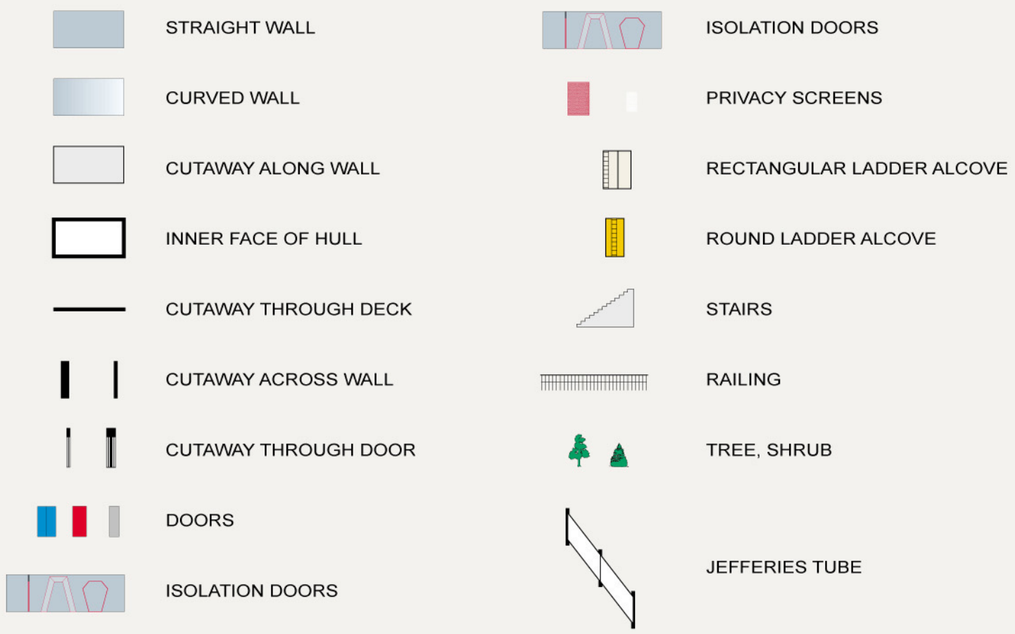
STARBOARD ENGINE INSPECTION STATION
(Cross-section, Looking Aft)



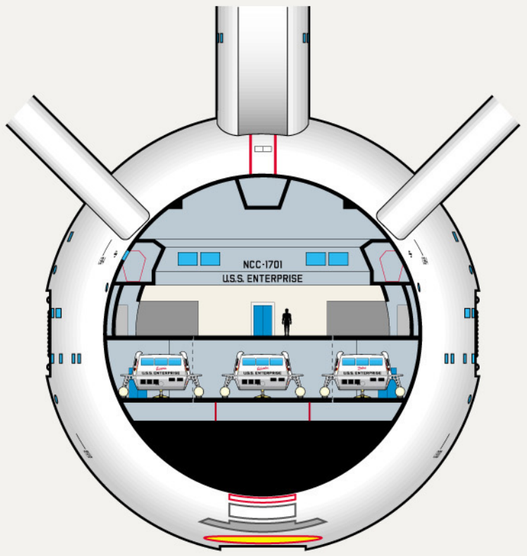
STARBOARD ENGINE INSPECTION STATION
(Plan View)



CUTAWAY SYMBOLS



HEAVY CRUISER HANGAR BAY
(Cross-section, Looking Forward)



U.S.S. ENTERPRISE From STAR TREK [TOS]

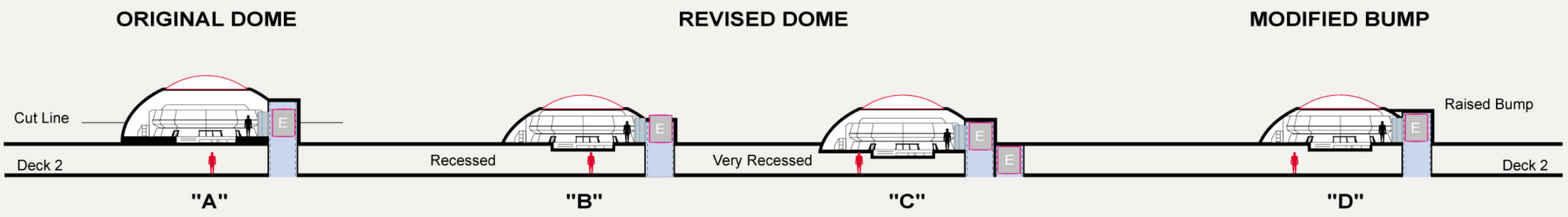
LAYOUT: DECK 1 (BRIDGE)

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NOTES

ORIGINAL BRIDGE
The original Bridge (the dome) on the studio model of the U.S.S. ENTERPRISE was taller. The bump behind this dome was also taller. A turbo-elevator easily fits inside the bump (see "A") even if the recessed floor of the Bridge is entirely above the ceiling of Deck 2.

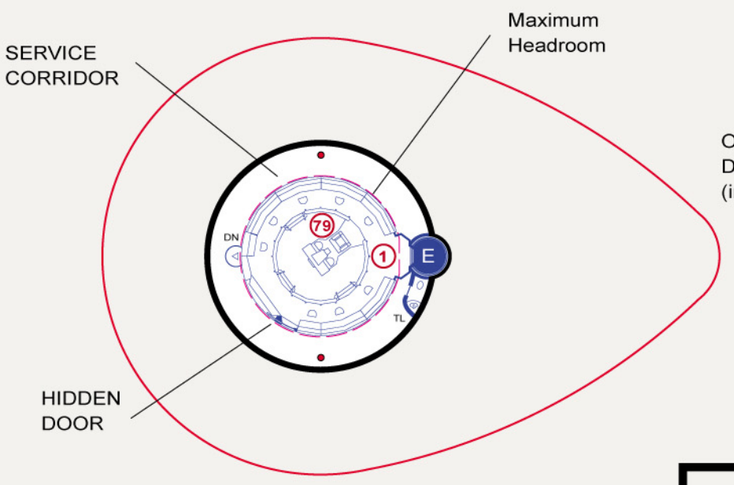
A forward-facing Bridge CAN fit (see "E" at right) but it has to be shifted forward; the Bridge is not in the middle of the dome. Also, the recessed floor of the Bridge will be slightly below the ceiling of Deck 2. Behind the Bridge is a turbo-elevator storage space too.

REVISED BRIDGE (Recessed)
When the shape of the Bridge on the model was modified, material was removed from the bottom of the dome and the bump. This reduced the height of the bump too much. A turbo-elevator no longer fit even if the recessed floor of the Bridge is dropped below the ceiling of Deck 2 (see "B"). Also, the lower curve of the dome means the Bridge has to be in the middle; this deletes the space available for the turbo-elevator tube and the storage space, which forces the Bridge to be rotated 36° so as to align the turbo-elevator alcove on the Bridge with the bump on the model.

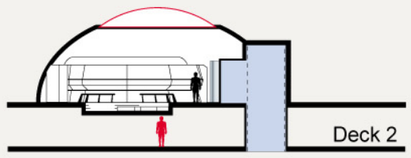
REVISED BRIDGE (Very Recessed)
If the main floor of the Bridge is also dropped below the ceiling line of Deck 2 the turbo-elevator does finally fit in the bump. However, this makes the ceiling for most of Deck 2 too low (see "C"). The Bridge is still rotated 36° but now, a turbo-elevator waiting to be used by Bridge personnel now encroaches into Deck 2. A second shaft has to be introduced behind the first one to allow unimpeded, uninterrupted service to Deck 2.

In at least one episode, a character left the Bridge and a moment later a turbo-elevator was available for another character to leave the Bridge. Spare turbo-elevators must be stored somewhere nearby, but the first available storage space is on Deck 3; this seems too far away.

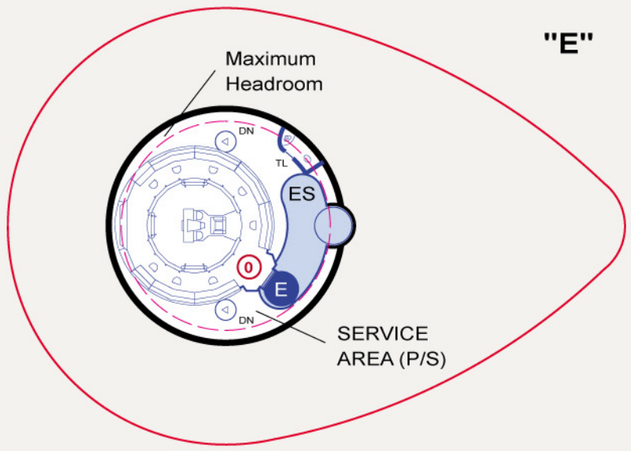
The Bridge shown in "C" is what I will use in these plans (see below). This DOES fit inside the studio model, however, the layout of the turbo-elevator shafts is very inefficient for Decks 2 and 3, and a rotated Bridge seems illogical.



DECK 1: REVISED BRIDGE



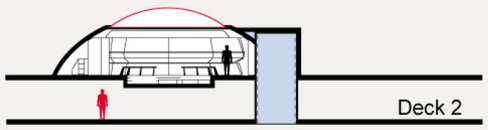
"E"

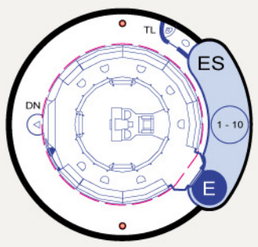


DECK 1: ORIGINAL BRIDGE (Facing Forward)

ALTERNATE BRIDGE CONFIGURATIONS
A simpler, more practical solution is to raise the bump slightly (see "D"). This is a good start. Extending the bump to the port side, or to both sides, is even better.

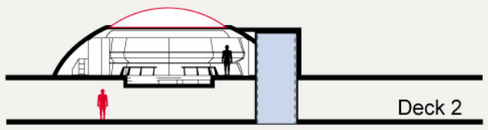
Such changes allow for smoother turbo-elevator operations, turbo-elevator storage spaces closer to the Bridge, and other (better, more logical) Bridge configurations. Three such designs are shown below, but won't be used in these Heavy Cruiser plans.

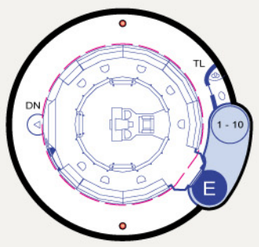




DECK 1: BRIDGE (v1)

v1.
A storage space for spare turbo-elevators exists to starboard. The bump is much bigger but is symmetrical.





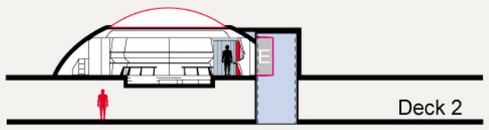
DECK 1: BRIDGE (v2)

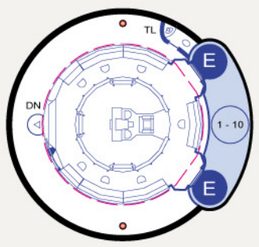
v2.
This second design minimizes the change to the size and shape of the bump but it is now asymmetrical.

v3.
The turbo-elevator storage space has been replaced by a second access point for the Bridge. The stations have been re-arranged around the Bridge, but overall, one station has to be deleted.

In all these alternate versions, the Bridge faces forward ... as it was always meant to be (in my humble opinion).

On all these Bridge designs, access to the Service Corridor is via removable panels, or hidden doors, or both.





DECK 1: BRIDGE (v3)

U.S.S. ENTERPRISE From STAR TREK [TOS]

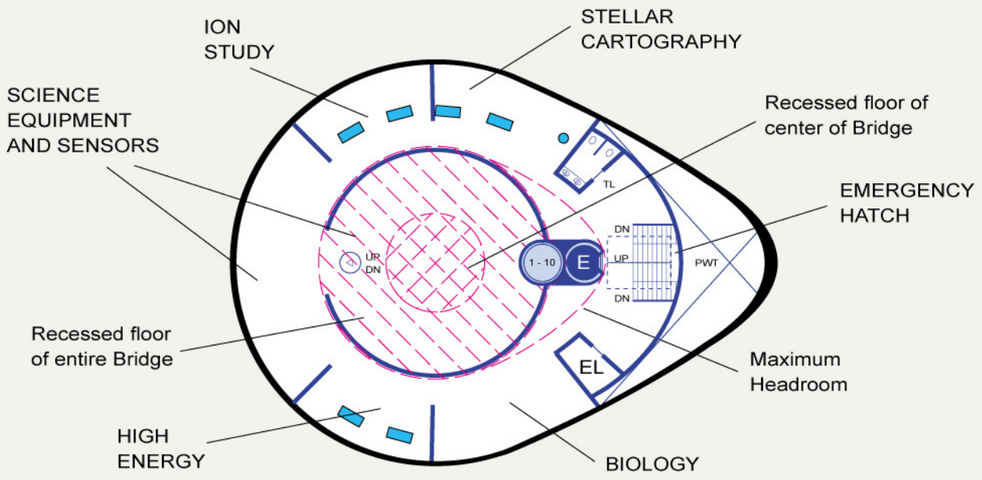
LAYOUT: DECKS 2 and 3 **PAGE 8 of 25**

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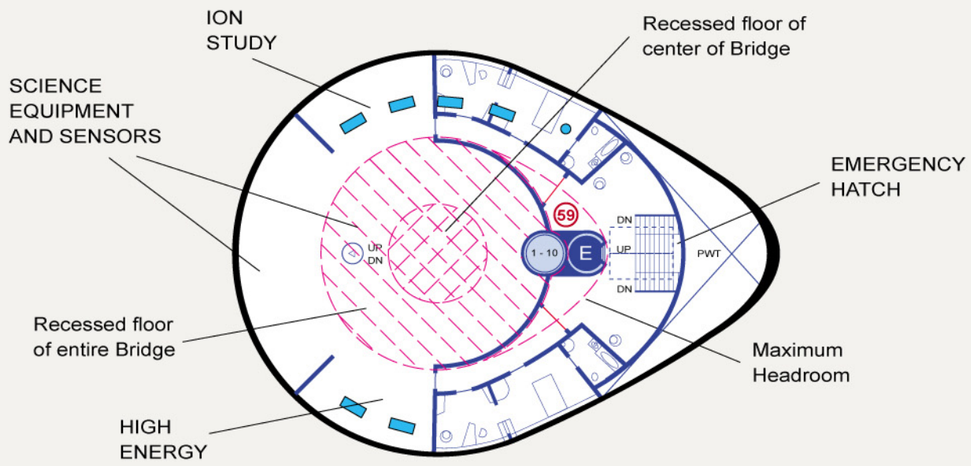
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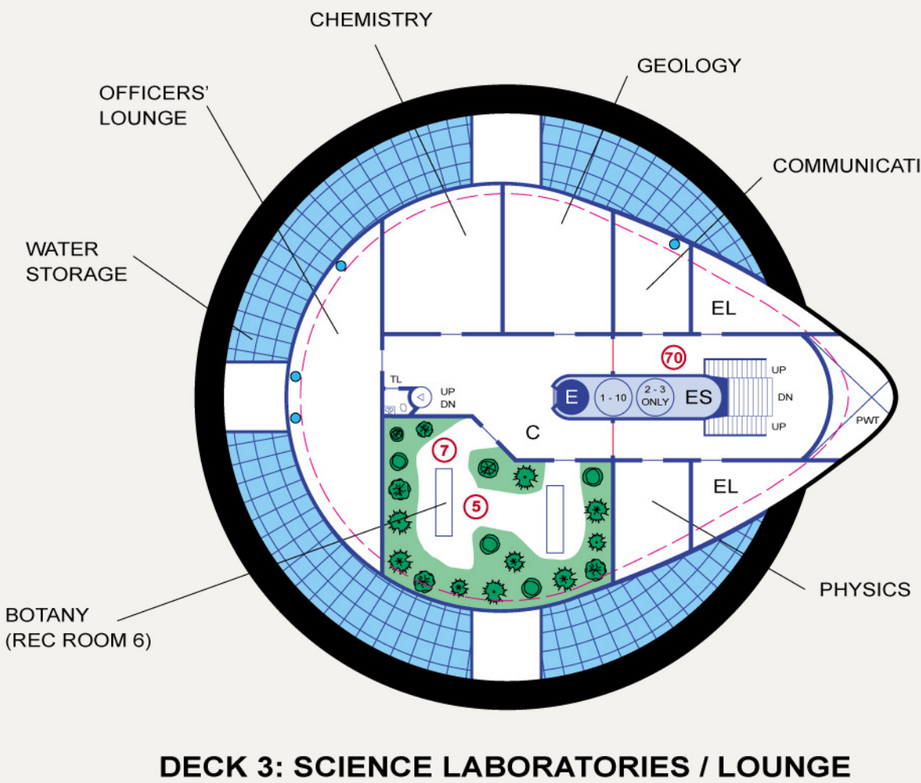




DECK 2: SCIENCE LABORATORIES



DECK 2: V.I.P. QUARTERS



DECK 3: SCIENCE LABORATORIES / LOUNGE

NOTES

DECK 2
I adjusted the spacing of the top 4 decks for a better fit, but the recessed Bridge (to allow a turbo-elevator to fit within the bump) and the recessed floor of the Bridge, still affect Deck 2 too much.

TMoST says this deck has Science Labs. This may be what was located here initially. However. according to dialogue from THE ENTERPRISE INCIDENT, the V.I.P. rooms are located on this deck. After 3 years in space, changes can be expected.

Except for the one round window on the starboard rear, the other "windows" are actually sensors and ports for the scientific equipment operated by the Science Labs on Deck 3.
This window pattern matches the windows visible on the studio model.

Stairs allow many people to exit the ship quickly. I can't imagine people trying to exit a ship (especially in an emergency situation) by using ladders. We never saw stairs but that does not mean stairs do not exist. The location of the hatch for these stairs coincides with an external marking on the studio model.

Ensuring that all the windows on the 11-foot model aligned with rooms and their functions influenced the spacing, location, and thickness of the decks and walls.

DECK 3
Stairs leading to the emergency exit on Deck 2 start on Deck 4 and continue up from there past this level.

An Officers' Lounge was never mentioned or seen but the existence of such a lounge is reasonable.

Yeoman Janice Rand invites Charlie X to join her in Recreation Room 6 on Deck 3. This Botany Lab could be considered "recreational." If not, then she was probably referring to the Officer's Lounge.

Bele started chasing Lokai on this deck. Spock tracked their movements using his viewer on the Bridge.

The remaining rooms are Science Labs as mentioned in TMoST.

These configurations for Deck 2 and Deck 3 do not appear on any of my other blueprint sets. They are drawn as shown here so as to satisfy the 3 criteria which drove this project.
Those criteria do not govern the other blueprint sets.

Therefore, I chose to raise the bump behind the Bridge on the other blueprint sets. Raising it deletes:
1. A second turbo-elevator shaft serving only Deck 2 and Deck 3.
2. A Bridge recessed so much that the ceiling for most of Deck 2 is too low to be useful.

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECK 4

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0 5 10 15 20
METERS

NOTES

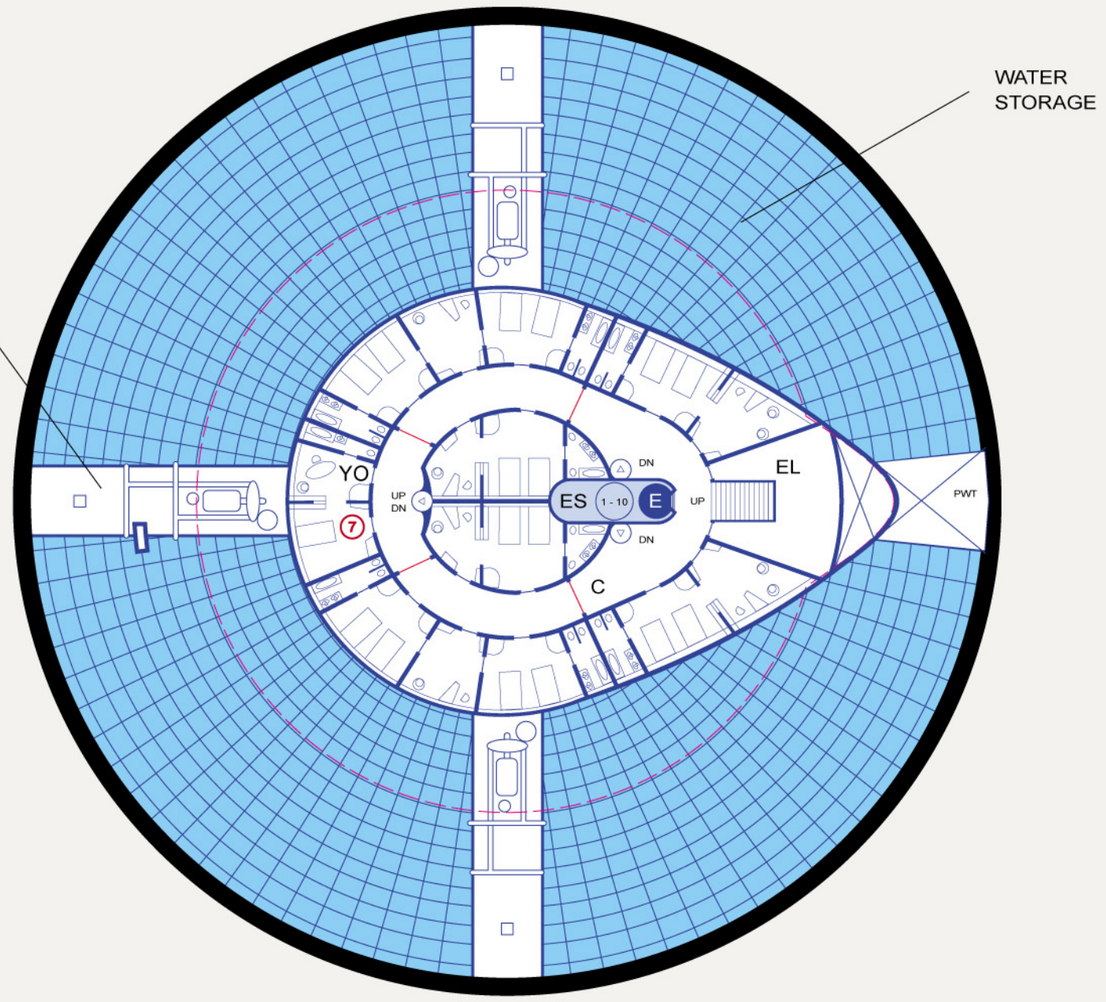
DECK 4
The stairs for evacuating the crew after an emergency landing via the hatch on Deck 2 start on this deck. Around, behind, and beneath these stairs is a storage space (EL).

TMoST mentions that Water Storage is on Deck 7. Of course, water can be placed there too, but the shallow space around this deck lends itself well to this function.

TMoST mentions Junior Officers have quarters on Deck 4. The book also explains that each officer likely has to share quarters with one other officer.

In JOURNEY TO BABEL, over 100 diplomats were transported by the U.S.S. ENTERPRISE.
In THIS SIDE OF PARADISE, over 150 colonists were transported off-planet by the ship.

Gene Roddenberry imagined a higher standard of living for everyone, even enlisted crew members. There are more than enough rooms and beds on the ship to accommodate diplomats, colonists, etc. It would only be in such situations that crew members might be asked to share rooms.



DECK 4: JUNIOR OFFICERS' QUARTERS

ACCOMMODATIONS

DECK 2 -		2
DECK 4 -	Ring A -	4
	Ring B -	13
DECK 5 -	Ring A -	12
	Ring B -	12
	Ring C -	14
DECK 6 -	Ring A -	12
	Ring B -	18
	Ring C -	28
	Ring D -	42
	Ring E -	48
	Ring F -	43
	Ring G -	44
	Ring H -	34
DECK 7 -		56
DECK 17 -		18
DECK 18 -		28
DECK 19 -		10
DECK 20 -		13
TOTAL		451

SHIP'S COMPLEMENT (PRIMARY HULL ONLY)

OFFICERS 35
ENLISTED 337

TOTAL 372

SHIP'S COMPLEMENT (ENTIRE SHIP)

OFFICERS 45
ENLISTED 387

TOTAL 432

SHIP'S COMPLEMENT (SECONDARY HULL ONLY)

OFFICERS 10
ENLISTED 50

TOTAL 60

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECK 5 **PAGE 10 of 25**

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0 5 10 15 20
METERS

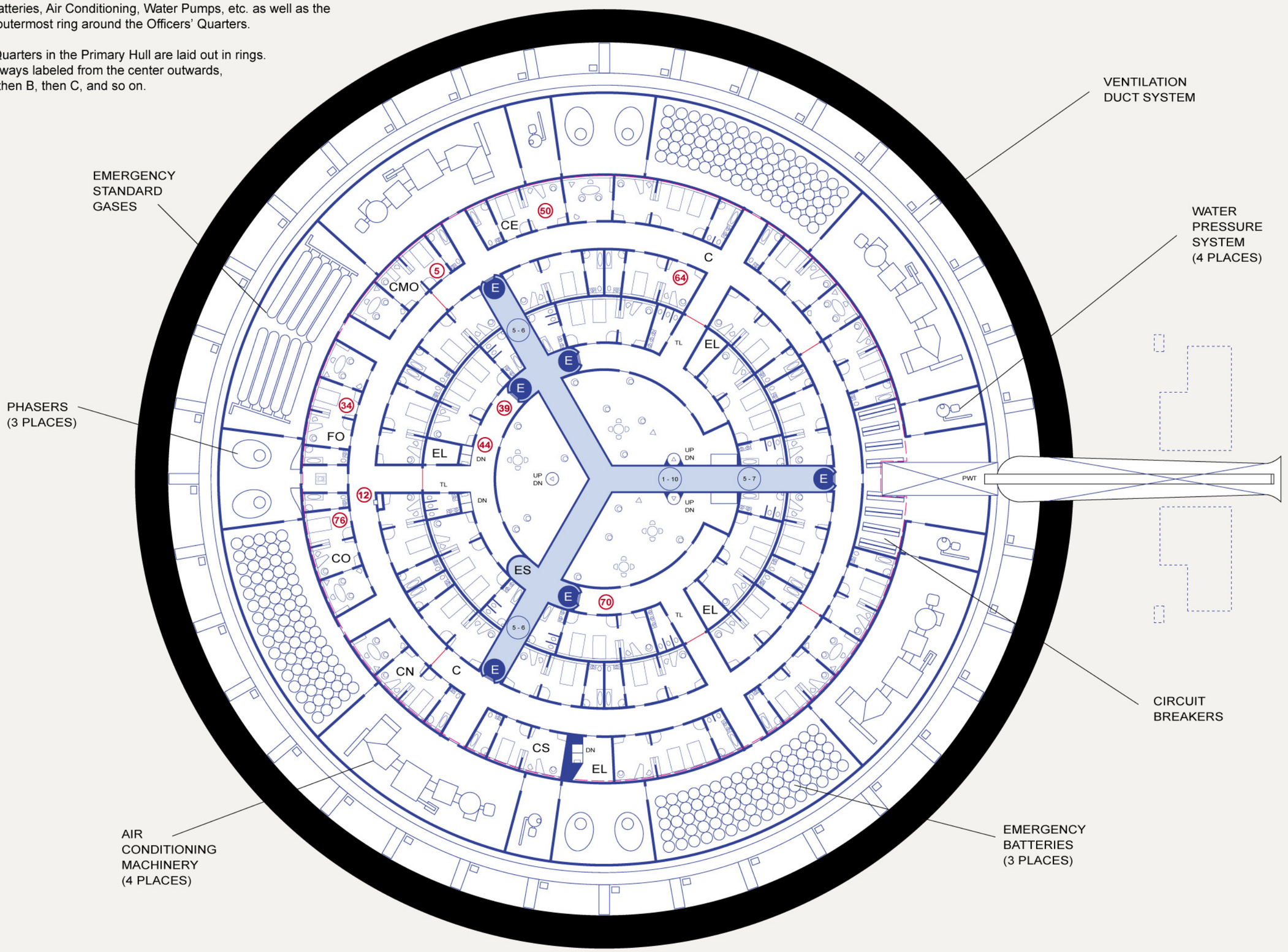
NOTES

DECK 5
The layout of this deck is very similar to the FJ design. I like the tri-radial symmetry of his design. However, his turbo-elevator shafts were not set at 120° so I adjusted them. There is also one turbo-elevator storage space.

I retained the Batteries, Air Conditioning, Water Pumps, etc. as well as the Phasers in the outermost ring around the Officers' Quarters.

All the Crew's Quarters in the Primary Hull are laid out in rings. The rings are always labeled from the center outwards, starting with A, then B, then C, and so on.

DECK 5 (continued)
In the center are 3 relaxation areas. The one at the front is a Lounge. The other two are considered to be Messrooms because they are serviced by food dispensers which are directly connected to the Food Preparation area on Deck 8.



DECK 5: SENIOR OFFICERS' QUARTERS

DECK 5 (continued)
The Orion (disguised as an Andorian) fought Kirk in front of a rectangular ladder alcove near his quarters.

Environmental Lockers (EL) are distributed all around the deck. They can also be used as storage spaces.

The mirror-universe Chekov arranged for his henchmen to attack Kirk the moment Kirk stepped out of a turbo-elevator on his way to his quarters.

The main Piping / Wiring Trunk can be accessed via panels on the outside of the ship. Those panels are located between the 2 red lines on the top rear of the Primary Hull.

There is a short story (fan fiction) that describes Kirk and Spock playing a game of chess in the corridor between their quarters. That specific corridor leads to the forward Phasers in the outermost ring. However, all the rooms of the outermost ring have doors connecting them. Any of the other 6 corridors can provide access to the ring. The fan-written story was very good, so I kept that corridor, blocked it off, and put a chess board in there.

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECK 6 **PAGE 11 of 25**

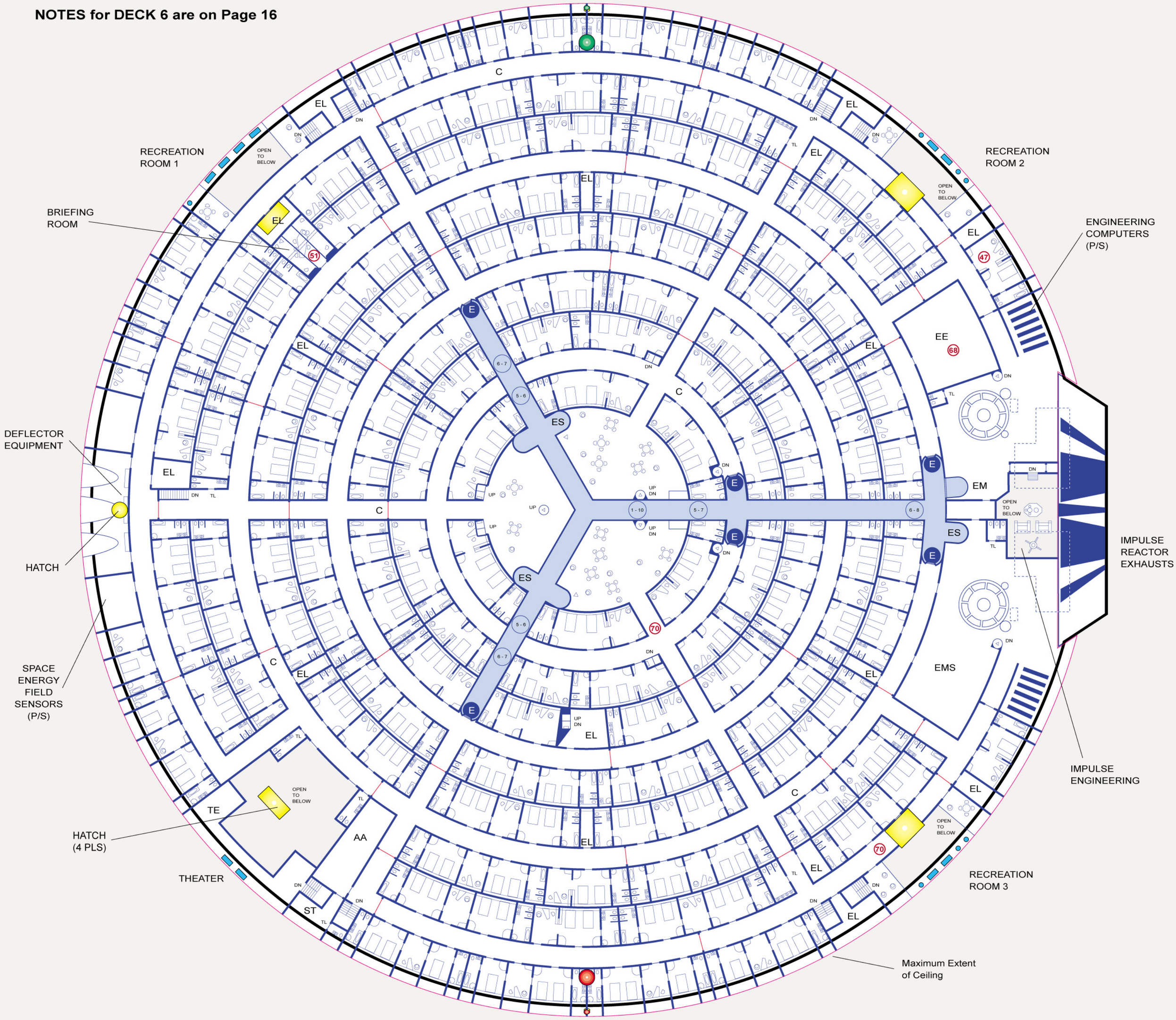
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0 5 10 15 20
METERS

NOTES for DECK 6 are on Page 16



DECK 6: CREW'S QUARTERS / ENGINEERING

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECK 6 ALTERNATE

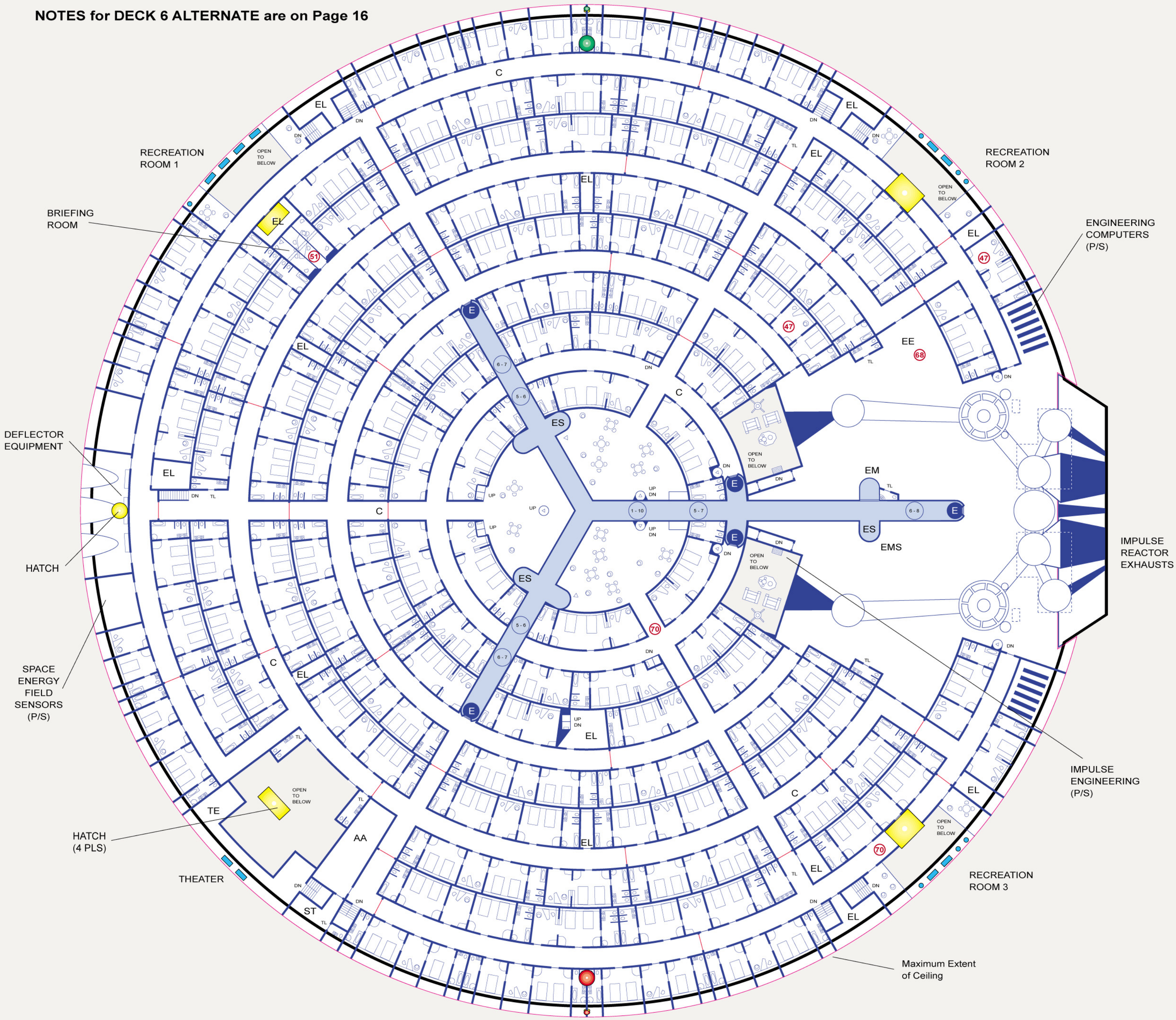
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0 5 10 15 20
METERS

NOTES for DECK 6 ALTERNATE are on Page 16



DECK 6: CREW'S QUARTERS / ENGINEERING

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECK 7 **PAGE 13 of 25**

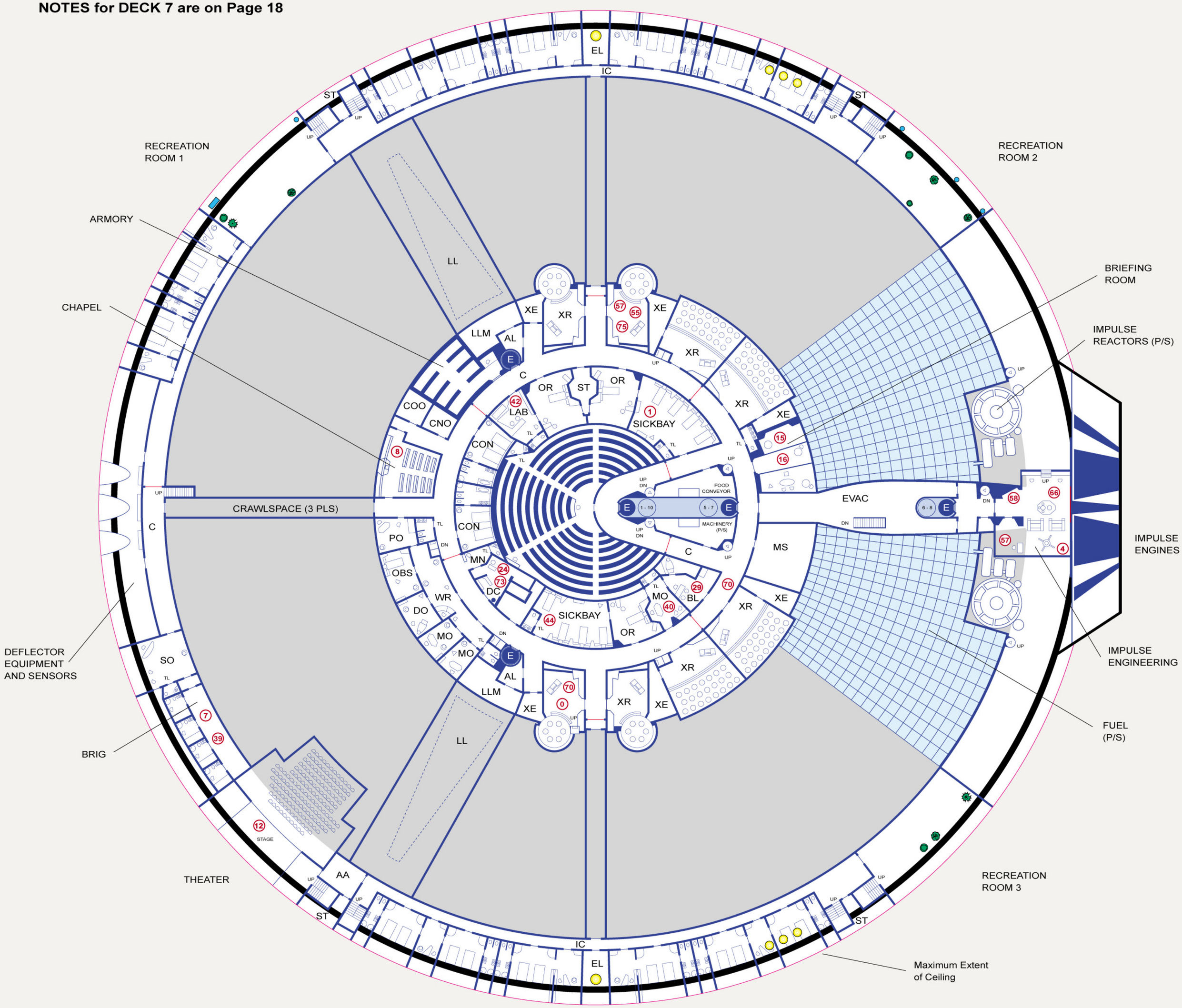
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0 5 10 15 20
METERS

NOTES for DECK 7 are on Page 18



DECK 7: CREW'S QUARTERS / SICKBAY / ENGINEERING

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECK 7 ALTERNATE PAGE 14 of 25

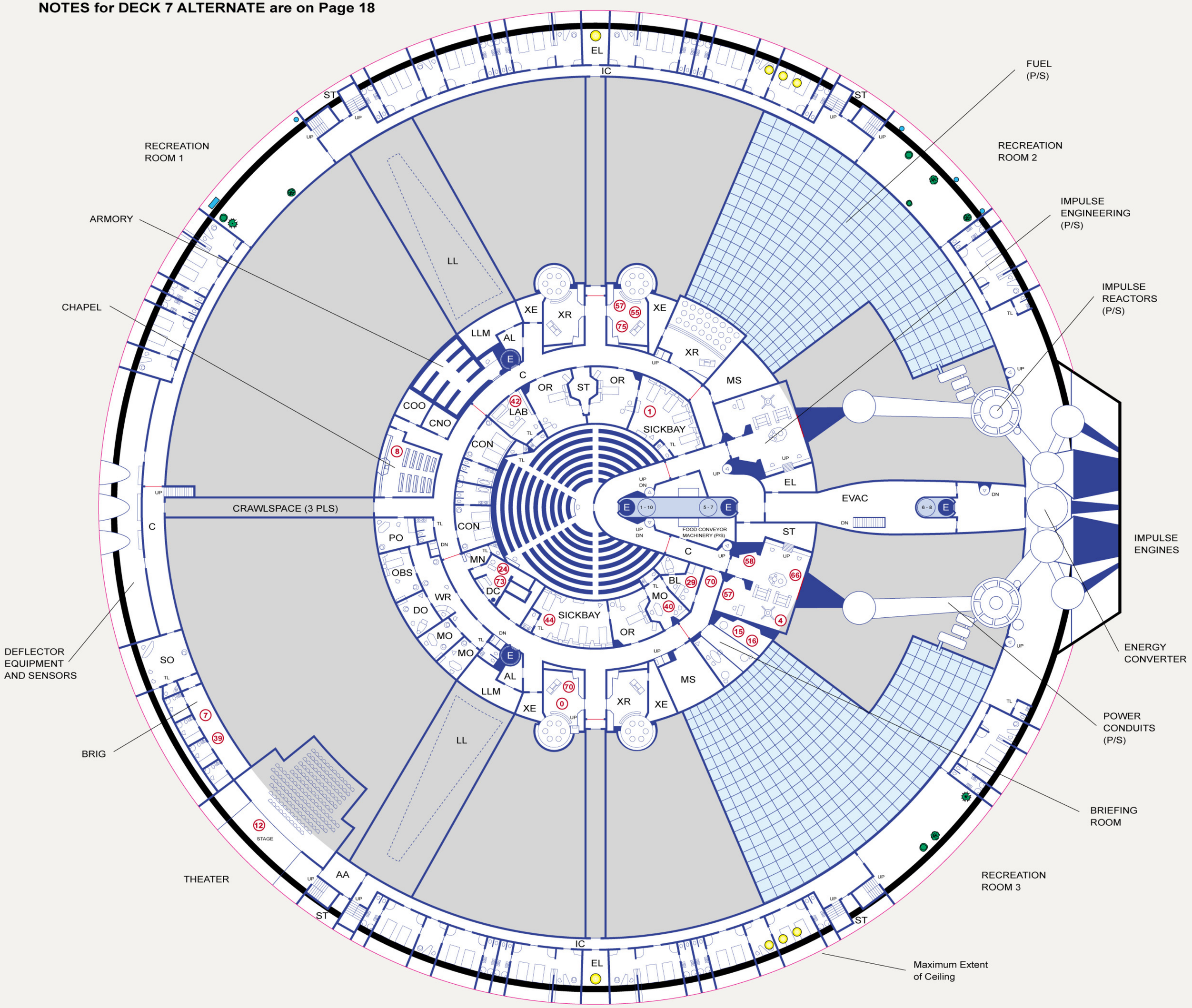
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0 5 10 15 20
METERS

NOTES for DECK 7 ALTERNATE are on Page 18



DECK 7: CREW'S QUARTERS / SICKBAY / ENGINEERING

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECK 8

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NOTES

DECK 8
TMoST states that the ship's Laundry, Food Preparation, Main Recreation and Entertainment areas are on this deck.

The Auxiliary Control is seen several times in 2 different configurations. It is surrounded by the ship's Main Computers which continue here from the center of Deck 7. We also see the Auxiliary Control room of the U.S.S. CONSTELLATION.

Nurse Christine Chapel entertained children in a "garden". The garden was a new set built for Season 3. There was an intricate planter in the center; I show it here in the park.

The Water Storage found here is an extension of the Water Storage on Deck 7 as mentioned in TMoST.

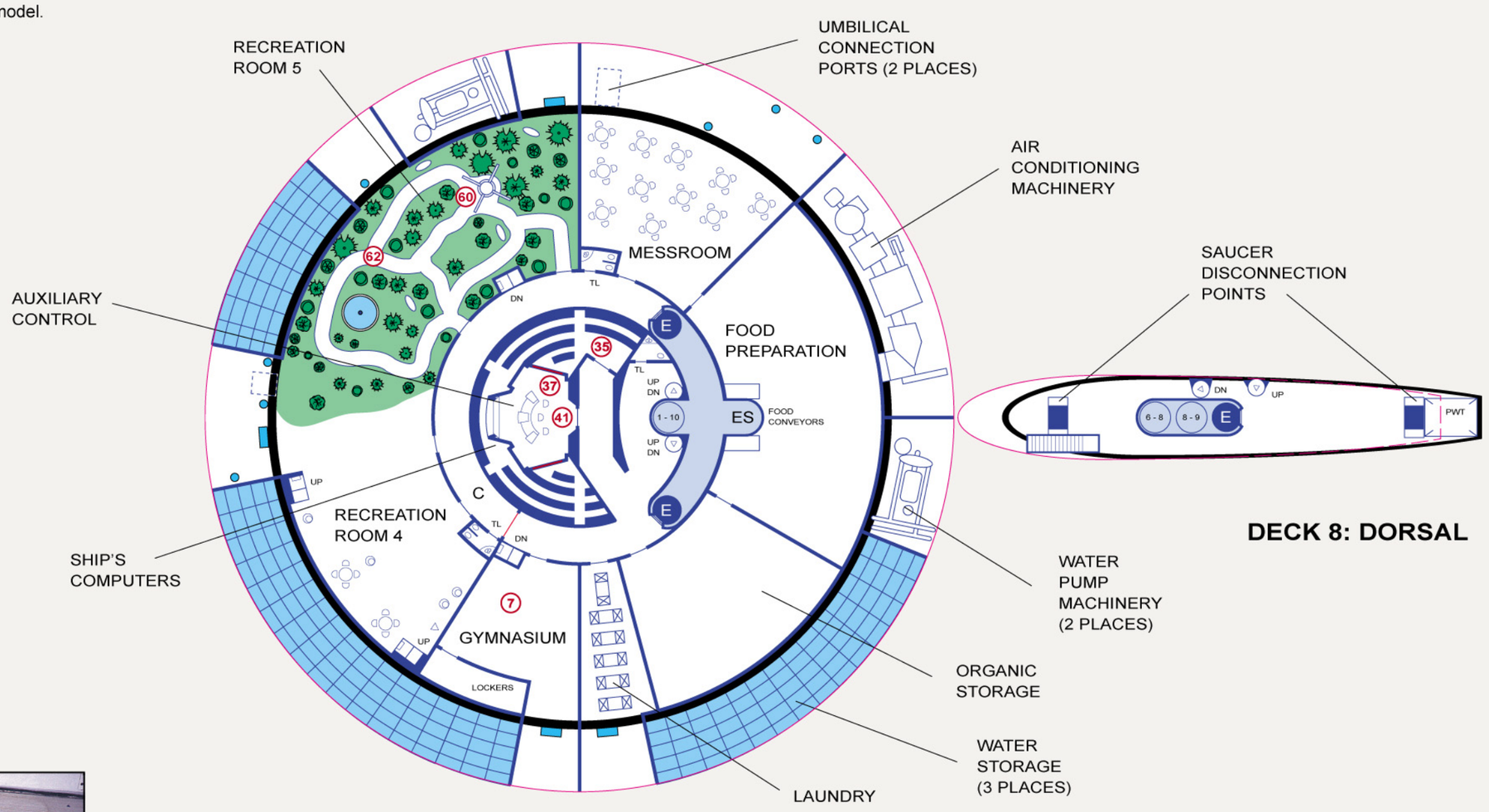
The Food Preparation area has two "conveyors" which distribute food upwards into the Messrooms located on Deck 6 and Deck 5.

There are four hatches or ports on the studio model.

DECK 8 (continued)
Two of them are on Deck 8. The other two are on Deck 9. Images of these hatches are below, right. Their distribution on the studio model is asymmetric, as are the windows around them. The hull is at such an extreme angle that even the longest hatch results in an opening only 4 feet (1.2 meters) tall. A crew member in a spacesuit can not fit through any of these hatches. Instead, these 2 hatches probably have a function similar to the Umbilical Connection Panels as seen on the Space Shuttle (below, left).

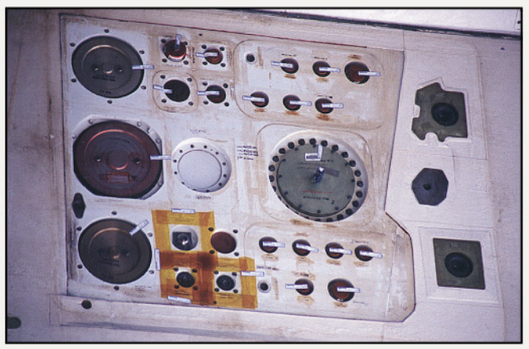
DECK 8 DORSAL
On the port side are the stairs used for evacuating the Secondary Hull prior to disconnecting the Primary Hull. They cannot be accessed from this deck, only from Deck 10 and Deck 7.

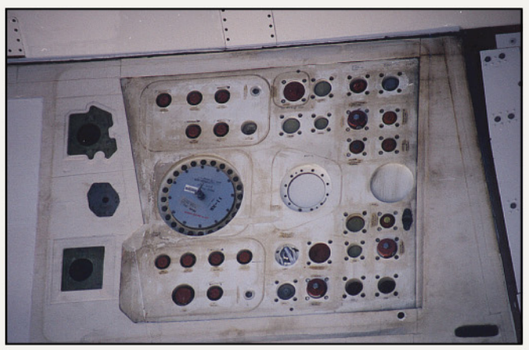
The disconnection equipment is located on this deck. This area is kept clear and is difficult to enter except by authorized personnel. It is accessible only by ladder and by Jefferies Tube.

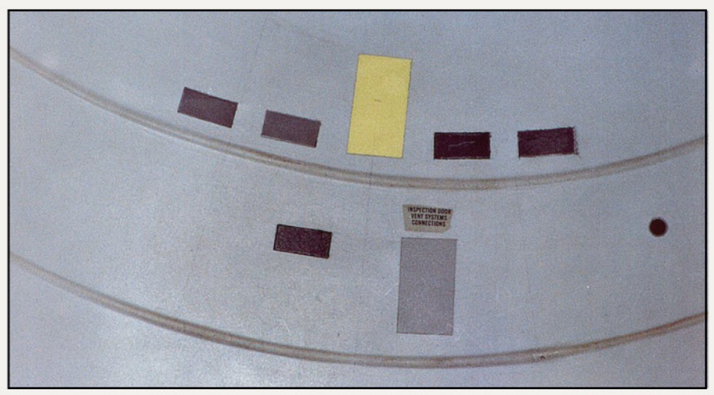


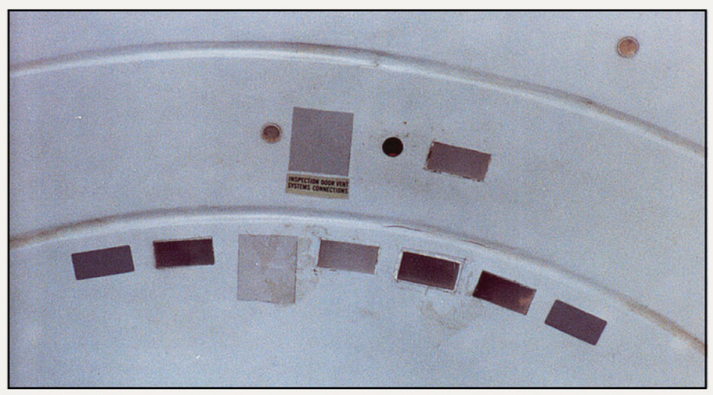
DECK 8: DORSAL

DECK 8: ENTERTAINMENT / RECREATION FACILITIES









U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECK 9

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NOTES

DECK 6
The layout of this deck is very similar to the FJ design. I like the tri-radial symmetry of his design. As on Deck 5, the turbo-elevator shafts are separated by 120°. I also added 4 more turbo-elevator storage spaces. This network is not as extensive as the FJ design; walking a few hundred feet or meters should not be an issue. Also, this network does not need to reach outward as much because it does not extend down to the outer ring of Deck 7.

The windows around the edge of the Primary Hull governed the location of the Recreation Rooms and Lounges. Each of these have balconies (on Deck 6) which overlook the main level (on Deck 7). Stairs lead down from the balconies to each Lounge. The location with the fewest windows became the Theater.

Beside each of those balcony stairs are other sets of stairs to provide access for the outer ring of Deck 7. One extra set of stairs is at the bow, behind the Deflector Equipment. All these stairs provide the outermost ring of Deck 7 with a connection to the rest of the ship, since turbo-elevators do not reach this far.

In the center are 3 relaxation areas. The one at the front is a Lounge. The other two are considered to be Messrooms because they are serviced by food dispensers which are directly connected to the Food Preparation area on Deck 8.

Environmental Lockers (EL) or storage spaces are distributed all around the deck, mostly concentrated near the 4 large rectangular escape hatches in the ceiling (shown here in yellow).

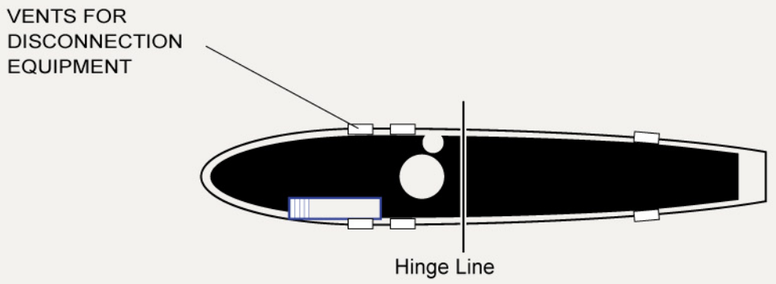
The turbo-elevator repair area is forward and to port of Engineering. Machine shops are to starboard and Environmental Engineering is further starboard. In RETURN TO TOMORROW, Sargon mentions he is in the Briefing Room on Deck 6.

DECK 6 ALTERNATE
Certain episodes and dialogue suggests that there are 3 Engine Rooms. This alternate layout satisfies those references.

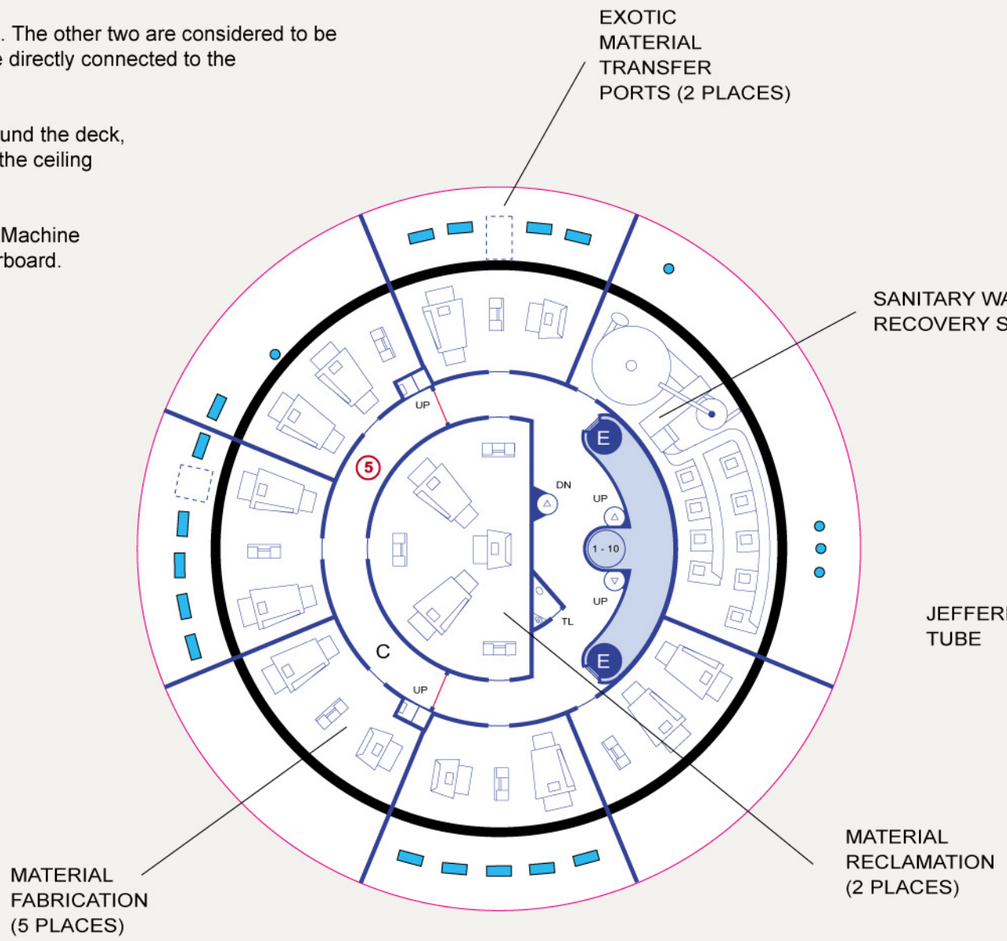
The Engineering Computers have been moved. The space between the 2 Engine Rooms contains Machine Shops and also the Environmental Engineering Section.

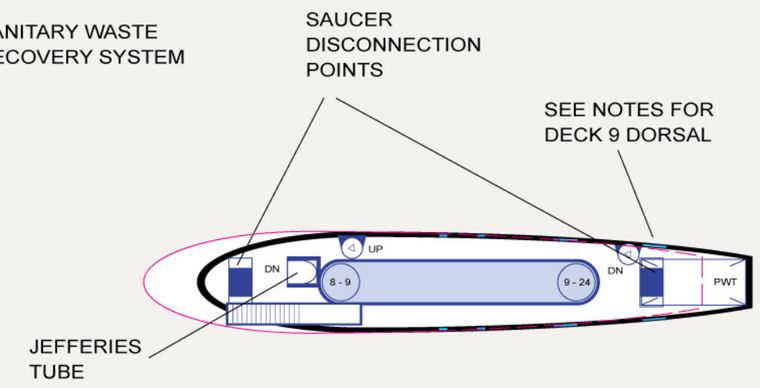
The total number of Crew's Quarters is reduced by 19 because of this larger Engineering layout.

REAR LANDING LEG
This is located between Dorsal Deck 8 and Dorsal Deck 9.



REAR LANDING LEG





DECK 9: DORSAL
DECK 1 (Secondary Hull)

DECK 9: FABRICATION FACILITIES

DECK 9
TMoST states that Material Reclamation and Fabrication is located on this deck. This process is probably not 100% efficient. Therefore, these 2 hatches could allow for transfer of rare elements required in various manufacturing processes.

DECK 9 DORSAL
The horizontal shaft of the turbo-elevator allows the turbo-elevator system to continue into the Secondary Hull. On the port side are the stairs used for evacuating the Secondary Hull prior to disconnecting the Primary Hull. They cannot be accessed from this deck, only from Deck 10 and Deck 7.

The disconnection equipment is located on this deck. This area is kept clear and is difficult to enter except by authorized personnel. It is accessible only by ladder and by Jefferies Tube.

This window appears orange because the ladder and the disconnection equipment block most of the light.

DECK 9 DORSAL is also called "DECK 1 (of the Secondary Hull)" because this re-numbering reflects the Secondary Hull's ability to operate independently.

SHIP DATA

LENGTH:	289 m
WIDTH:	127 m
HEIGHT:	67 m
TRANSPORTERS	
6-person:	5
22-person:	4
cargo:	2
SHUTTLECRAFT:	4
PHASERS	
banks of 2:	4.5
TORPEDO TUBES:	2

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECKS 10 and 11 — PAGE 17 of 25

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NOTES

DECK 10
TMoST mentions Photon Torpedoes but not their location. Photon Torpedoes were shown to emanate from the underside of the Primary Hull, approximately the same place as the Phasers. Phasers are on Deck 11 ... therefore the Photon Torpedo Launchers are placed here, just above the Phasers. Photon Torpedo Launch Control and Torpedo Storage are also located on Deck 10.

TMoST states that miscellaneous activities and cargo spaces are on Deck 10. Since cargo spaces are on this deck, it is logical to place a Cargo Transporter here. A discussion about Transporter Rooms is on Page 24.

DECK 10 DORSAL
This is a lounge.

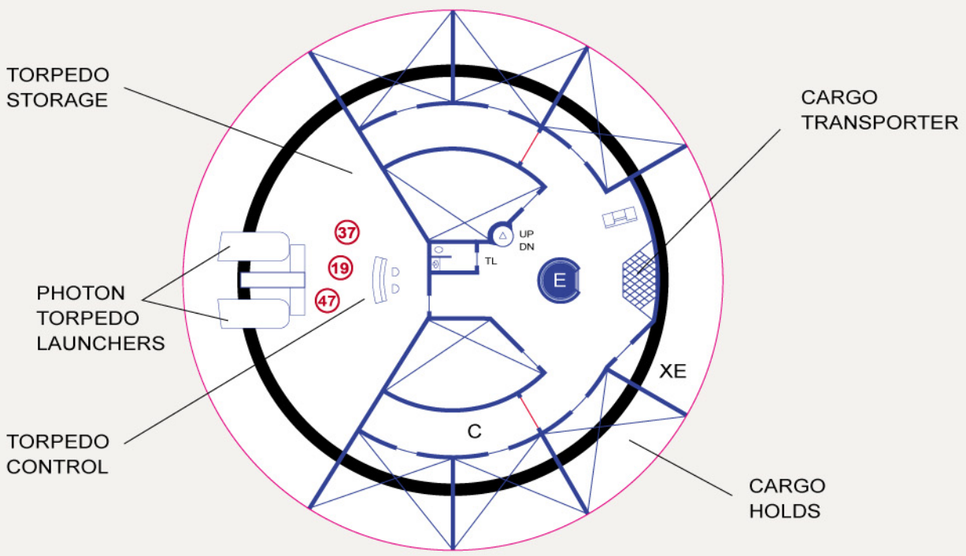
The stairs on the port side are used for evacuating the Secondary Hull prior to disconnecting the Primary Hull. They lead directly to Deck 7.

DECK 11
TMoST states that Phaser Control is on Deck 11. The episode BALANCE OF TERROR shows this room. Set plans show that the door was offset to starboard. The room is offset to port because there is not much headroom on this deck. The door leads to the corridor which curves around to the ladder at the back.

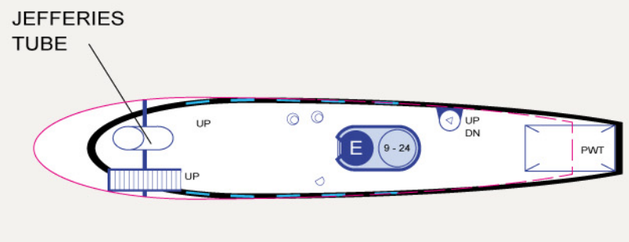
The equipment around the perimeter is for the Tractor Beam. The 3 Tractor Beam Controllers direct the Emitter so that the beam can locate and lock onto the object being towed.

The 3 pale gold-coloured recessed rings on the underside of the Primary Hull absorb and re-direct any back-scatter created by the Tractor Beam.

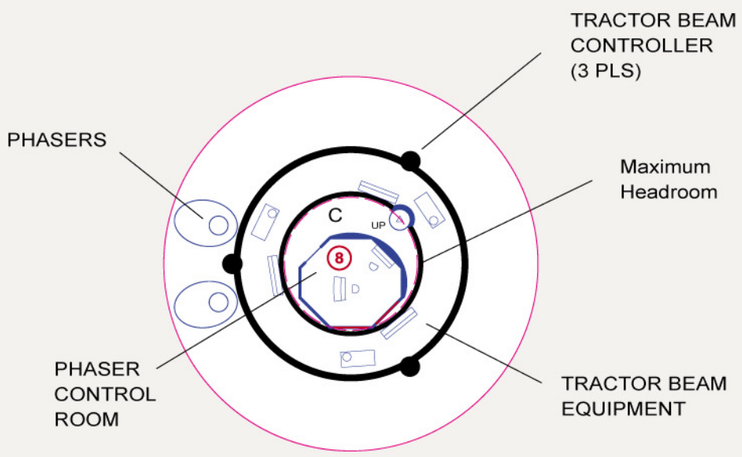
DECK 11 DORSAL
This Jefferies Tube leads up to the Primary Hull disconnection equipment. A dead Tellarite was found here in the episode JOURNEY TO BABEL.



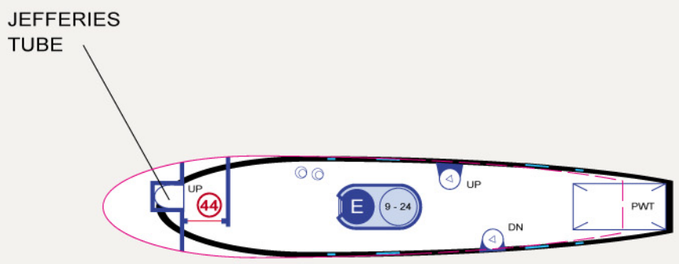
DECK 10: PHOTON TORPEDO LAUNCHERS / CARGO TRANSPORTER



DECK 10: DORSAL
DECK 2 (Secondary Hull)



DECK 11: PHASER FIRE CONTROL



DECK 11: DORSAL
DECK 3 (Secondary Hull)

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECKS 12, 13, and 14 PAGE 18 of 25

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NOTES

DECK 7
The windows around the edge of the Primary Hull governed the location of the Recreation Rooms / Lounges. Each of these have balconies (on Deck 6) overlooking the main level (on Deck 7). Stairs lead down from the balconies to each Lounge. The location with the fewest windows became the Theater.

Beside each of those balcony stairs are other sets of stairs to allow access to the outer ring of Deck 7. One extra set of stairs is at the bow, behind the Deflector Equipment. All these stairs provide the outermost ring of Deck 7 with a connection to Deck 6, and from there, to the rest of the ship. The Crew's Quarters located in the outer ring are for the most junior crew members. They all contain bunk beds.
The main Brig on the forward port side replaces some of these quarters.

The grey area represents the concave cutout on the underside of the Primary Hull. This area could be used for Water Storage as suggested in TMoST. It could also be used for cargo, or fuel, or air tanks. I leave the area grey (for the most part) so as to clearly set it apart from the rest of the deck.

The center of this Deck contains an Armory, a Briefing Room, a Chapel, the 2 Main Landing Legs, and Sickbay. Sickbay includes various labs, offices, waiting rooms, and a post-surgery recovery area.

Four (4) Transporters (for 6 people) are located on this deck, as well as four (4) Emergency Transporters (for 22 people). A discussion about Transporter Rooms is on Page 24.

In the center are the ship's Main Computers, as described in TMoST. The machinery for the food conveyors is located aft of the Main Computers.

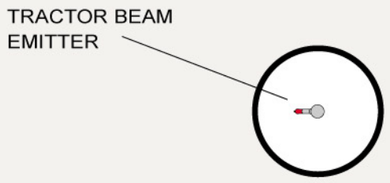
DECK 7 (continued)
At the aft end is Impulse Engineering. The concave undercut of the Primary Hull should affect the floor in Engineering. Of course, that detail did not appear in the episodes.

The ladder ahead of and to starboard of Impulse Engineering provides access to the disconnection equipment on Decks 8 and 9. Ahead of that ladder (in the area shown as EVAC) are the stairs used for evacuating the Secondary Hull prior to disconnecting the Primary Hull.

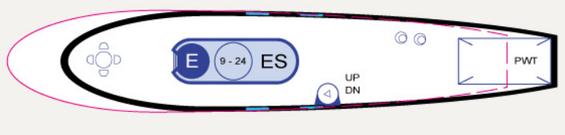
DECK 7 ALTERNATE
Certain episodes and dialogue suggests that there are 3 Engine Rooms. This alternate layout satisfies those references. The two Impulse Engineering sections have been moved to the inner ring. The concave undercut of the Primary Hull might affect the floor in Engineering, but only very slightly.

To make this fit, three (3) Emergency Transporters (for 22 people) had to be deleted. They have not been relocated to another part of the ship.

The Briefing Room and Sickbay have been re-arranged but still occupy the same basic locations.



DECK 12: SENSORS / TRACTOR BEAM



DECK 12: DORSAL
DECK 4 (Secondary Hull)



DECK 13: DORSAL
DECK 5 (Secondary Hull)

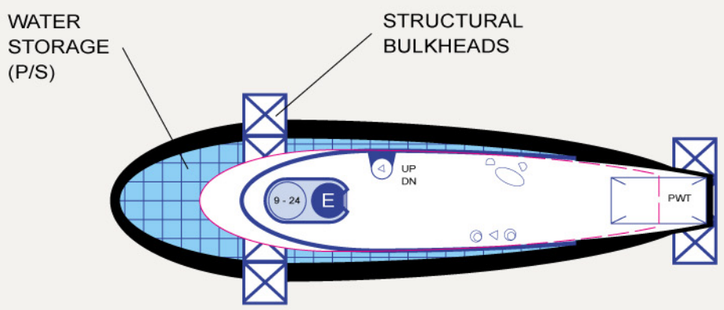
NOTES

DECK 12
The Lower Sensor Dome is located here.
The Tractor Beam Emitter is at the bottom of the Lower Sensor Dome.

DECK 12 DORSAL
This is a lounge.

DECK 13 DORSAL
This a lounge.

DECK 14 DORSAL
This area is also a lounge, but the top of the Secondary Hull's water tank is also visible here.



DECK 14: DORSAL
DECK 6 (Secondary Hull)

U.S.S. ENTERPRISE From STAR TREK [TOS]

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NOTES

DECK 15
Water, Water Pumps, Deuterium, and Air Conditioning Machinery are located here. A rarely used (and never seen) refueling hatch is located on the spine, between the 2 red lines which are visible on the top of the Secondary Hull. Okay, I must admit, the hatch is my idea.

Structural Bulkheads and engine pylon supports extend from here downwards for 3 or 4 levels. A public restroom (not visible here) is under the Structural Bulkhead beside the turbo-elevators.

DECK 16
All aspects of ships' operations as seen in the Primary Hull are repeated in the Secondary Hull, albeit to a smaller and lesser degree. On top of all that, the Secondary Hull also has to support Hangar Bay operations, Cargo Operations, and Warp Engineering.
When separated from the Primary Hull, how does the Secondary Hull move? Maybe there are impulse engines at the rear of the Warp Engine nacelles (or maybe they are in the pylons). Nothing is visible on the studio model so I did not add anything.

DECK 16 (continued)
Sickbay is always important, as are laundry facilities.

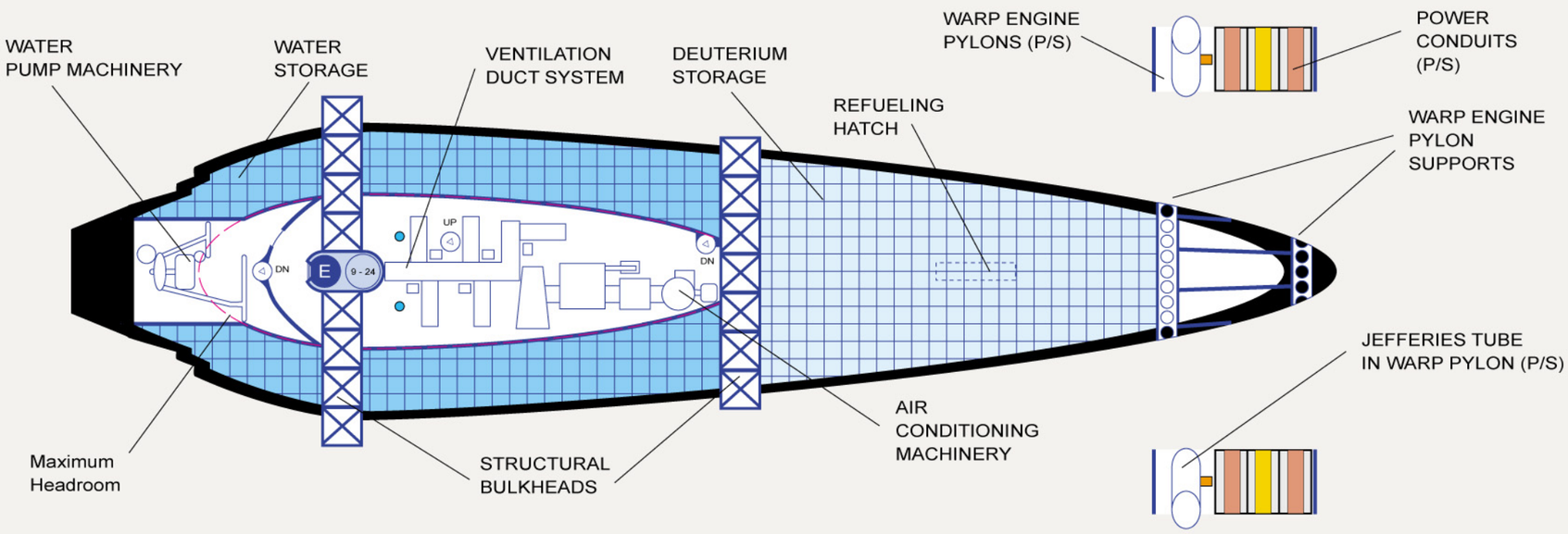
Environmental Engineering is located at the end of the central corridor. Aft of this are the Circuit Breakers.

The Power Conduit (seen in episodes aft of Engineering by means of a "forced perspective" set) is aft of the Main (Warp) Engineering High Bay and forward of the Hangar Bay.

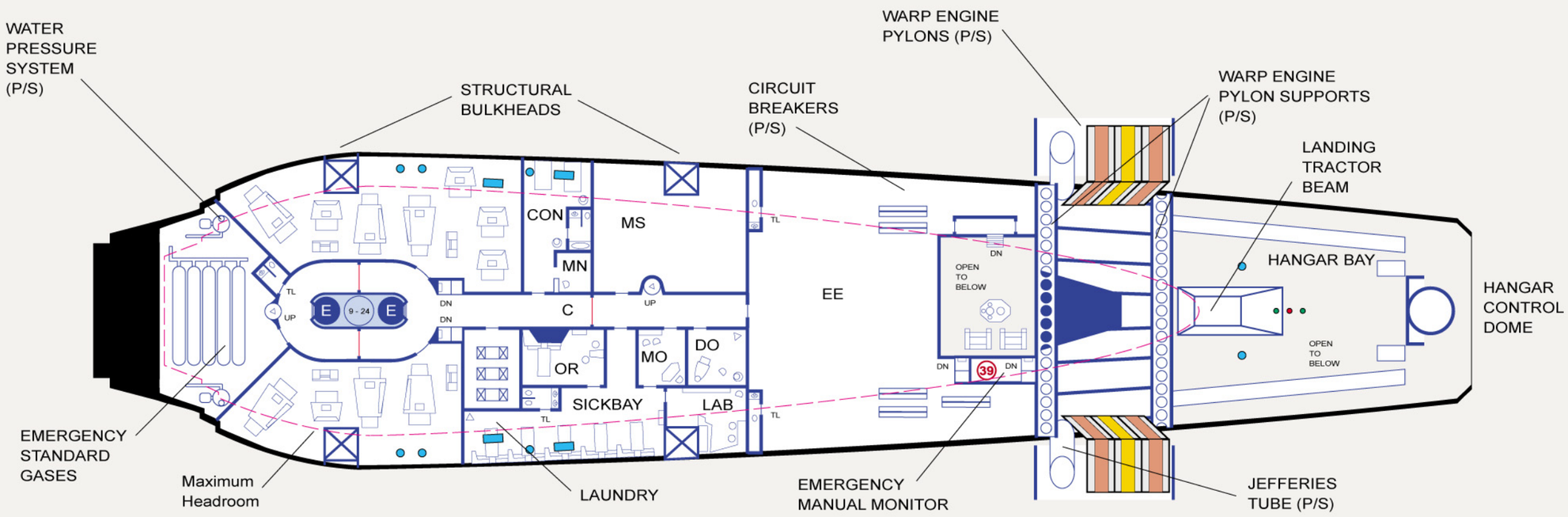
The Emergency Manual Monitor (EMM) is immediately to port of the Main (Warp) Engineering High Bay.

The Landing Tractor Beam can be reached from the Hangar Bay.

The Hangar Bay Control Dome is normally unmanned. It can also be reached from the Hangar Bay.



DECK 15: SECONDARY HULL STRONGBACK
DECK 7 (Secondary Hull)



DECK 16: FABRICATION / SICKBAY / ENGINEERING
DECK 8 (Secondary Hull)

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECKS 17 and 18

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NOTES

DECK 17
The FJ plans do not set aside any space for Deflector Equipment.

TMoST states that there are some Crew's Quarters in the Secondary Hull, mostly for the Warp Drive Engineering personnel.

The Dilithium Energizer Station (as seen in THE ALTERNATIVE FACTOR) is on the port side, ahead of the Chief Engineer's Office. The Engineering Machine Shop is on the starboard side.

Monitoring stations to port of Main (Warp) Engineering allowed Lenore to sneak up behind Riley and poison him in CONSCIENCE OF THE KING. If she came in through the main doors, he would have seen her.

The Observation Gallery (OG) can be accessed from Deck 17 by descending stairs to Deck 18. From there, a few steps lead up and aft to the OG. The OG is partway between Decks 17 and 18.

The rooms on each side of the stairs are normally off-limits except to authorized personnel. They provide access to the Jefferies Tubes, which reach up into the engine nacelles.

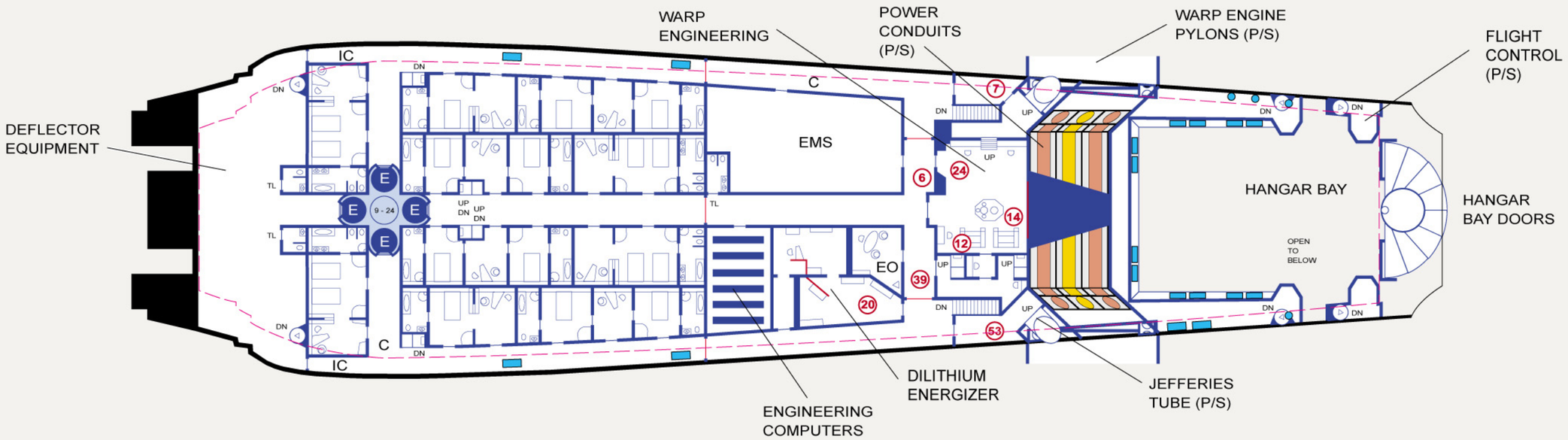
DECK 18
As with Deck 17, the FJ plans do not set aside any space for Deflector Equipment. Also, they do not show the three rectangular protrusions located around the Main Sensor Dish.

TMoST states that there are some Crew's Quarters in the Secondary Hull, mostly for the Warp Drive Engineering personnel.

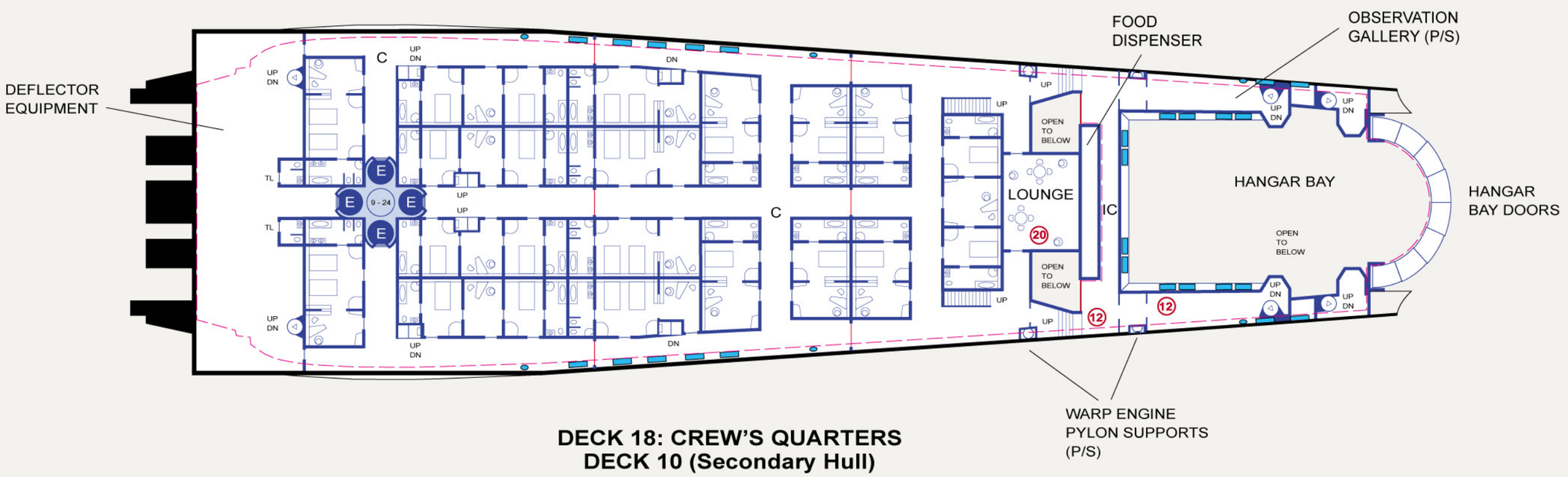
Public restrooms (not visible here) are under the stairs just ahead of (on each side of) the Lounge.
At the aft end of the Crew's Quarters is a Lounge. This Lounge was seen in THE ALTERNATIVE FACTOR. The food dispenser aft of the Lounge is linked by transporter to the Food Preparation area two decks below. It occupies the space below the Power Conduits where the ceiling is too low. It is low because the OG is a few steps above Deck 18.

On each side of the Lounge are the steps leading up to the OG. In CONSCIENCE OF THE KING, prior to entering the OG, Kirk makes a slight zigzag, then walks past a red grille and through 2 trapezoidal bulkheads. This occurs because the Warp Engine Pylon Support protrudes into the OG. The red grille across the front of the OG allows observers to look down into the cargo unloading area on Deck 19.

Ladders from the Observation Gallery allow access to the alcoves on either side of the Hangar Bay.



DECK 17: CREW'S QUARTERS / ENGINEERING / OBSERVATION GALLERY
DECK 9 (Secondary Hull)



DECK 18: CREW'S QUARTERS
DECK 10 (Secondary Hull)

U.S.S. ENTERPRISE From STAR TREK (TOS)

LAYOUT: DECKS 19 and 20 **PAGE 21 of 25**

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NOTES

DECK 19
The Secondary Bridge is located at the front of this deck. Behind the Bridge is a turbo-elevator storage space. The Bridge is surrounded by computers. Outboard of the computers are two of the three rectangular protrusions that contain the Space Energy Field Sensors.

A Briefing Room is behind and to port of the Bridge and an Armory is behind and to starboard. A Phaser was stolen from the Armory on "H Deck" in THE CONSCIENCE OF THE KING. Since the Hangar Bay is located here, Deck 19 could be "H Deck".
The Writer's Guide says the Hangar Bay is a "huge football field" sized area; this is simply not possible.

The Shuttlecraft shown here is 28 feet (8.5 meters) long. See comparison drawing and Note "S" on Page 2 for more info. In at least 2 episodes, the Hangar Bay is also called the Flight Deck.

Cargo Operations is not a full-time requirement, so there are walls in the Cargo Processing Area that can be moved as needed. When there is no cargo being processed, this area is used for greeting dignitaries, or as a staging area for Landing Parties, or as a lounge / recreation area. Equipment for these functions is located in the cargo holds.

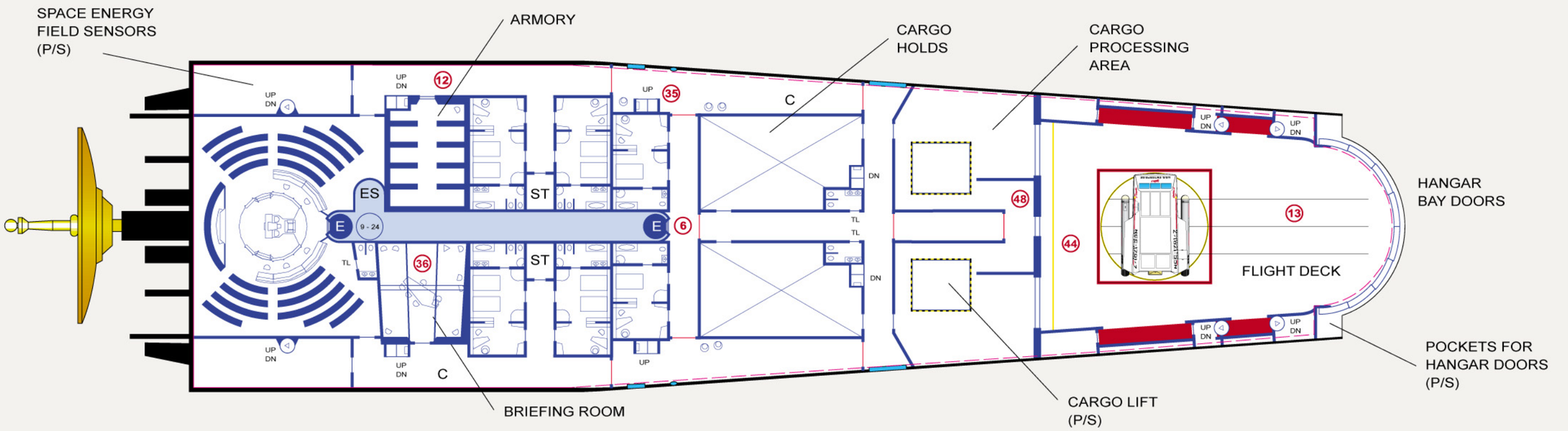
DECK 20
Duplicate Officers' Quarters are located here and are sometimes used by officers even if the Secondary Hull has not separated from the Primary Hull. Using the alternate numbering system, Deck 20 becomes Deck 12; this explains why Mr. Spock took Mudd's women to the captain's quarters on Deck 12. Also, in THE ENEMY WITHIN, Kirk's alter-ego was seen near his quarters on Deck 12.

A large Food Preparation area and Messroom is located in the middle of this deck.

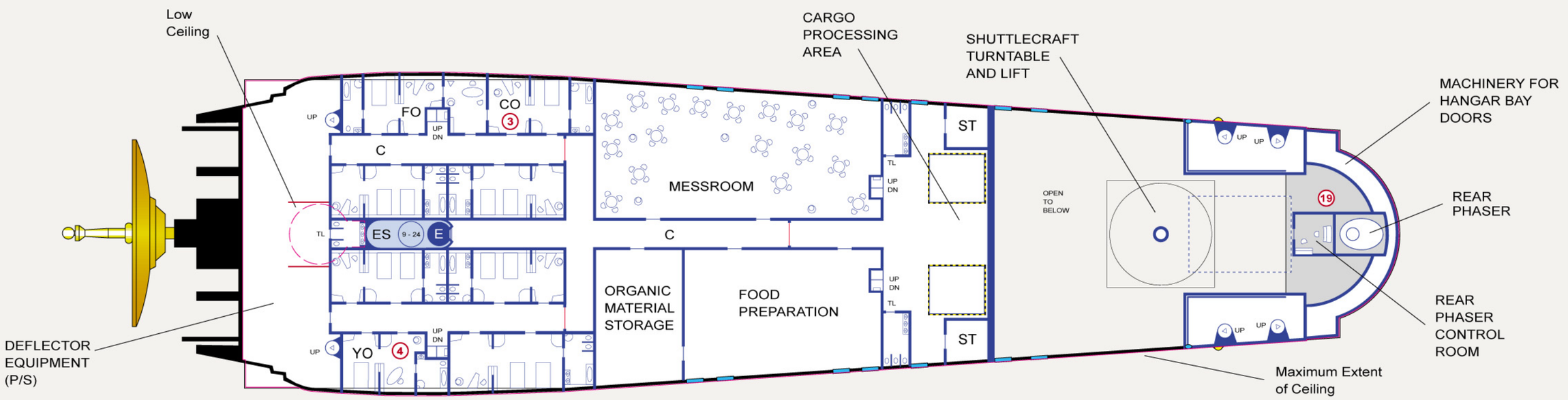
Aft of that is a continuation of the cargo processing area from the deck above.

The Shuttlecraft Maintenance High Bay is further aft but this is not accessible from Deck 20. It is halfway between Decks 20 and 21. The main entrances to the Shuttlecraft Maintenance area are at the top of a few steps leading up from Deck 21. However, this area can also be reached by climbing down the ladders from the port and starboard alcoves of the Hangar Bay on Deck 19. Those ladders drop onto the roof of port and starboard storage rooms within the Shuttlecraft Maintenance area.

At the extreme rear there is an aft Phaser Control room and an aft Phaser (specifically singular), as mentioned in ARENA. These can only be accessed by first entering the Shuttlecraft Maintenance area.



DECK 19 (H DECK): SECONDARY BRIDGE / HANGAR DECK
DECK 11 (Secondary Hull)



DECK 20: FOOD PREPARATION / SHUTTLE MAINTENANCE
DECK 12 (Secondary Hull)

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECKS 21 and 22 PAGE 22 of 25

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0 5 10 15 20
METERS

NOTES

DECK 21
Even if Riley was intoxicated in THE NAKED TIME, his comment about "a formal dance in the bowling alley" provided sufficient motivation to try to fit a bowling alley somewhere on the ship.
Is one lane (as shown here) sufficient?

An Olympic-sized pool does not fit, but the pool shown here is sufficient for some swimming and wading.

Cargo holds can be reconfigured for various other functions, as required. The cargo lifts continue down from Deck 19 all the way to Deck 22.

Aft of the Cargo Lift is the Shuttlecraft Maintenance area. THE OMEGA GLORY suggests the standard complement for starships of this class is 4 Shuttlecraft. If so, 3 can be stored here and 1 more can be stored on the Hangar Deck above (also known as the Flight Deck or the Hangar Bay). The shuttle stored on the Hangar Deck is always ready for launch, as Commodore Decker demonstrated in the episode THE DOOMSDAY MACHINE.

Steps on either side of the maintenance area lead down and aft to the storage areas. Walking aft on the main deck between the storage areas leads to the inner face of the fantail which curves upwards (shown in grey); continuing aft and up on the fantail leads to the rear Phaser Control Room and the rear Phaser.

DECK 21 (continued)
The Shuttlecraft shown here are 28 feet (8.5 meters) long.
The space under the floor in the maintenance area is the maintenance pit, storage for parts, fuel, etc.

DECK 22
The bottom of the pool, as well as pool maintenance equipment is located at the front of this level.

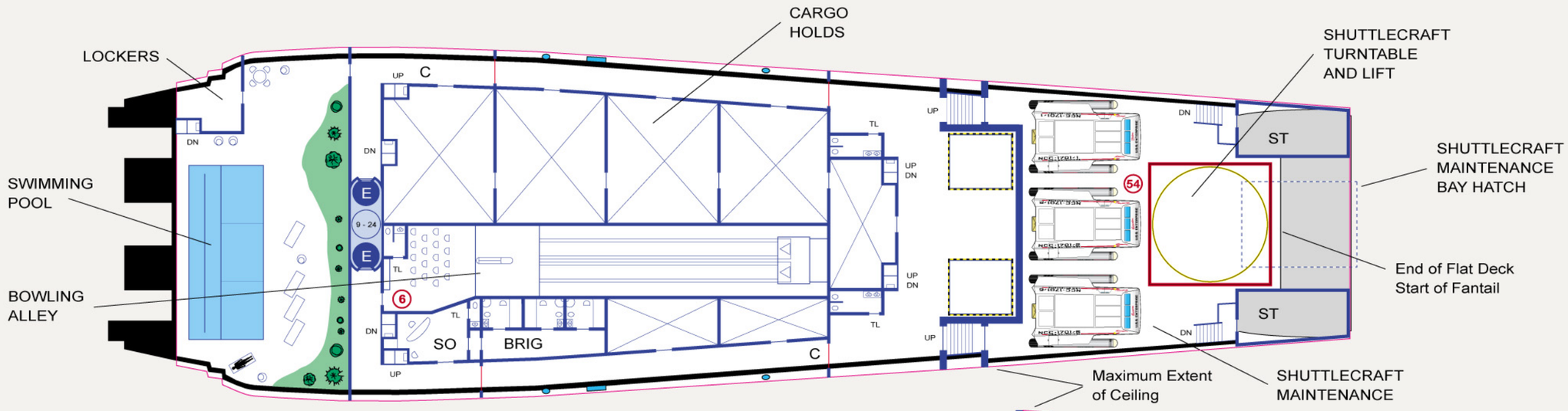
Just aft of the pool bottom is a small Brig and to starboard of that is a Sanitary Waste Recovery system.

In DAGGER OF THE MIND Uhura reported trouble on Deck 14. This is where Van Gelder was hiding.

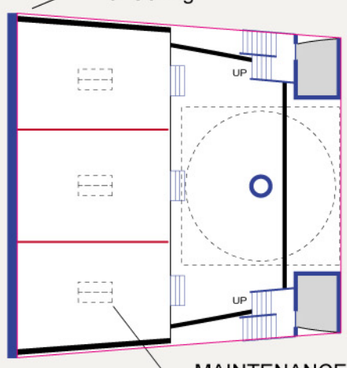
The cargo lifts continue down from Deck 19 all the way to Deck 22. A single cargo lift in the center continues down to Deck 23.

At the very back, beyond the last cargo holds, is the access for the pod used to study Ion Storms.

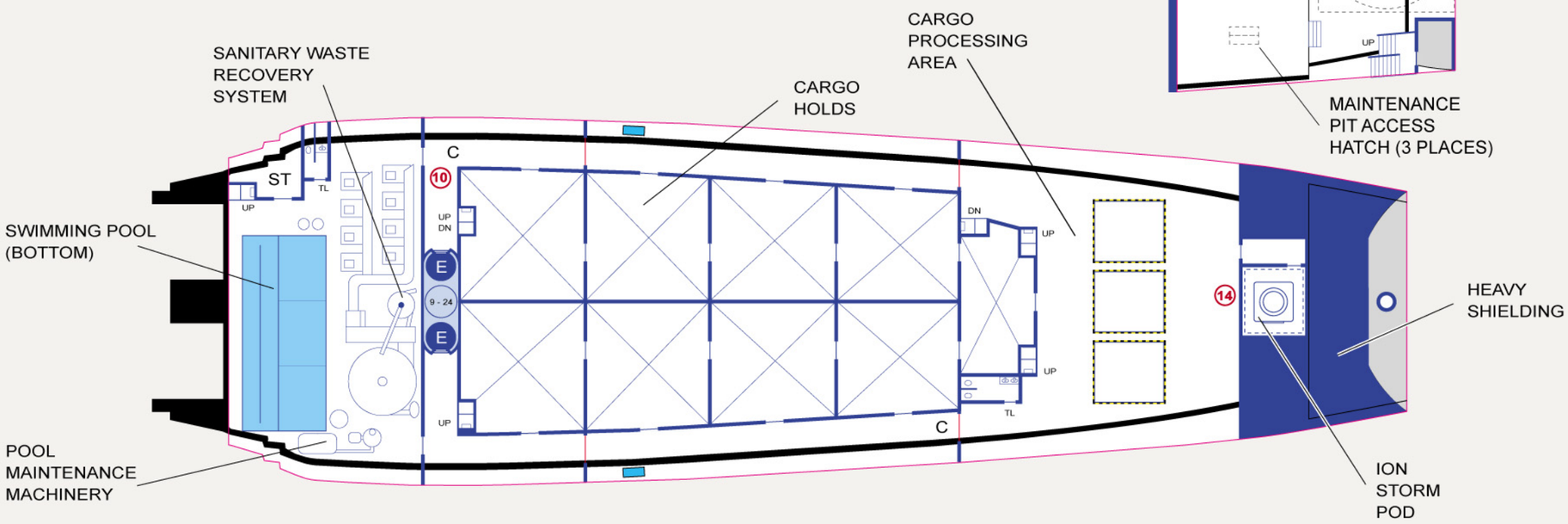
The undercut of the fantail is very steep, creating a curved "wall" at the extreme rear (shown in grey).



DECK 21: RECREATION / CARGO / SHUTTLE MAINTENANCE
DECK 13 (Secondary Hull)



SHUTTLE MAINTENANCE PIT



DECK 22: CARGO
DECK 14 (Secondary Hull)

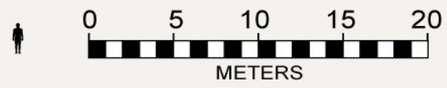
U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECK 23

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NOTES

DECK 23
The Deflector Equipment area at the front supports the Space Energy Field Sensors on Deck 24, below.

TMoST says the ship has six (6) Personnel Transporters (for 6 people), five (5) Emergency Transporters (for 22 people), and two (2) Cargo Transporters. A discussion about Transporter Rooms is on Page 24.

The Food Dispenser is linked via Transporter to the Food Preparation Area on Deck 20. It provides food to the Transporter Room as seen in a few episodes.

The final cargo hold is on this level. This oversized cargo hold in the middle of the deck has an airlock at the front and can also open to the vacuum of space via the two large hatches on the underside of the hull.

In the "Remastered" episodes, they show satellites being deployed from this Cargo Hold via the circular hatch.

The Cargo Lift reaches from Deck 22 down to this level. It is ahead of the hatch for the Ion Storm Pod.

The fantail starts with a steep upward slope at the extreme rear of this deck. This is shown in grey.

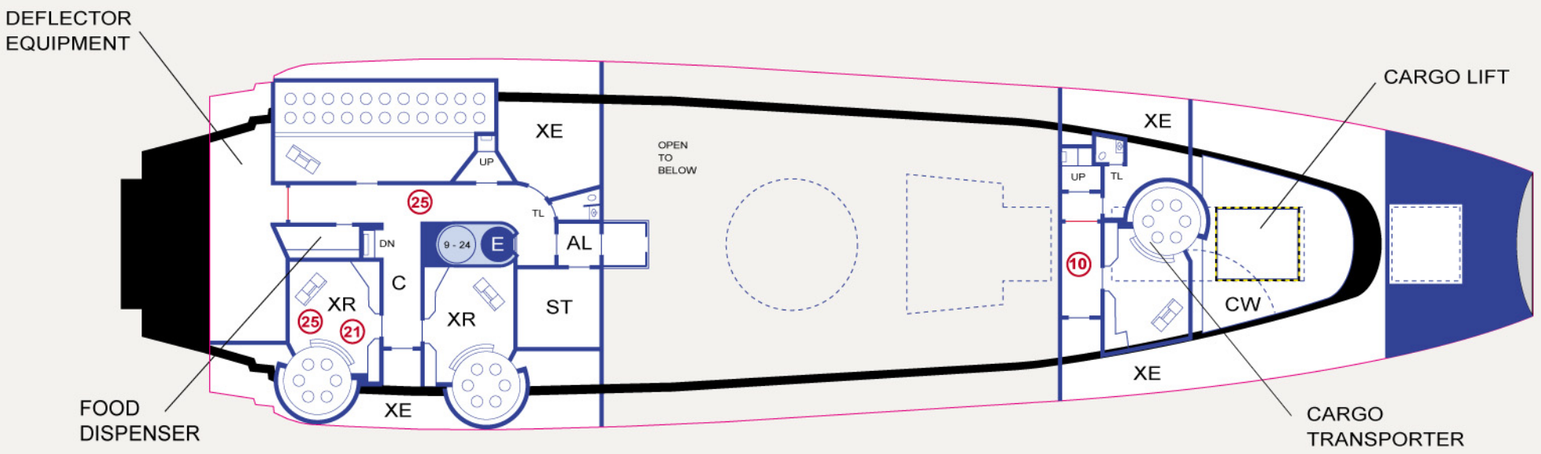
DECK 24
The third of the three rectangular protrusions around the Main Sensor Dish (each of which contains the Space Energy Field Sensors) is located at the front of this deck.

The other 2 rectangular protrusions span Decks 18, 19, and 20 at the front, on each side.

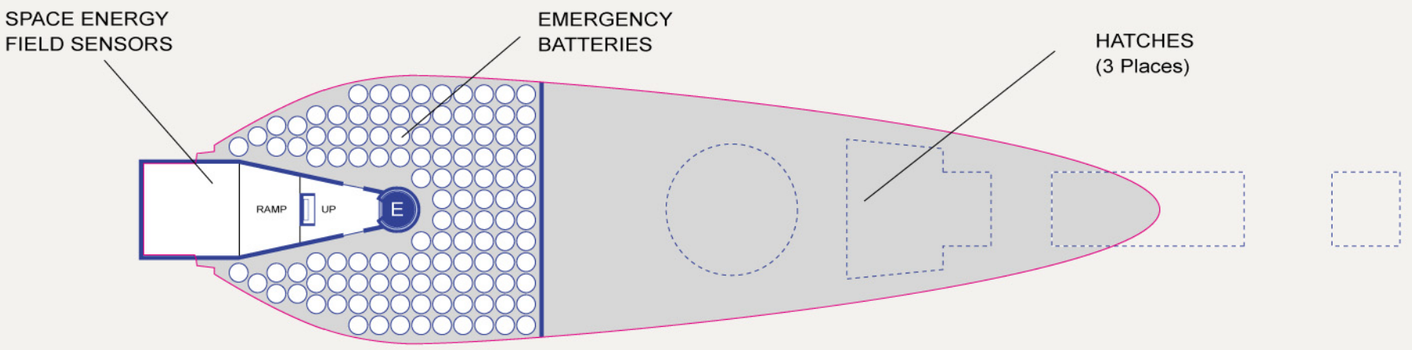
The Emergency Batteries on this deck (aft of the Space Energy Field Sensors) provide back-up power for the Secondary Hull.

This large cargo hold is part of the cargo hold on the deck above which can be accessed via the airlock on Deck 23. The two large hatches on the underside of the hull open to the vacuum of space. If needed, satellites (for example) can be launched from here.

The underside of the Secondary Hull curves upward, rising above the floor all around. A cutout on the underside of the Secondary Hull creates the flat floor on this deck.



DECK 23: TRANSPORTERS (Original Configuration) / CARGO
DECK 15 (Secondary Hull)



DECK 24: BATTERIES / CARGO
DECK 16 (Secondary Hull)

TMoST states that the Secondary Hull (also known as the Engineering Section) has 16 decks. The alternate deck numbering system (first shown to the right of the Secondary Hull on Page 1) reveals why the Separation Plane is located between Deck 8 and Deck 9. Starting the count from there, Deck 9 of the ship is Deck 1 of the Secondary Hull.

Thus, Deck 24 of the ship becomes Deck 16 of the Secondary Hull.

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: DECKS 21 and 22 PAGE 24 of 25

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TRANSPORTER ROOMS

The Writers Guide states, "We assume there are various Transporter Rooms through the vessel." The book THE MAKING OF STAR TREK says that the ship has six (6) Personnel Transporters (for 6 people), five (5) Emergency Transporters (for 22 people), and two (2) Cargo Transporters.

Here is the breakdown:

Deck 7 has four (4) Personnel Transporters and four (4) Emergency Transporters. Deck 10 has one (1) Cargo Transporter.
The total in the Primary Hull is 9 Transporter Rooms.

Deck 23 has two (2) Personnel Transporters, one (1) Emergency Transporter, and one (1) Cargo Transporter. In DAGGER OF THE MIND it looked like a Personnel Transporter but attempts were made on-screen to suggest that it was a Cargo Transporter. It is this transporter that was redrawn to depict a Cargo Transporter.
The total in the Secondary Hull is 4 Transporter Rooms.

I wanted to match what we see in the episodes (doors, corridors, etc), even from the early episodes. Also, I wanted to to distribute examples of all 3 types of Transporters in both parts of the ship, so that "normal" operations could still continue even after disconnection.

1. In WHERE NO MAN HAS GONE BEFORE, there is an exposed ladder outside the Transporter Room. There is also an Isolation Door in the corridor with a cross-corridor at the end. This fits well on the starboard side of Deck 23 facing forward.

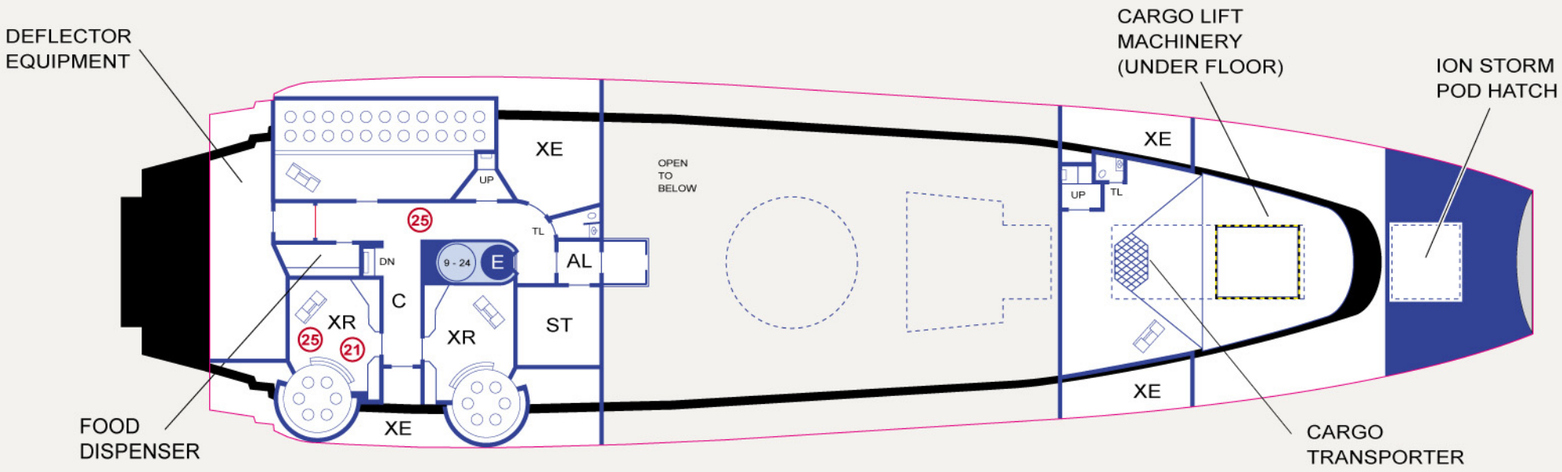
2a. An Emergency Transporter is suggested in THIS SIDE OF PARADISE with a sign (no doubt done as a cost-saving measure).
2b. There is an Isolation Door in the corridor with a red door at the end. After slight modifications, this fits well on the starboard side of Deck 23 facing forward.

3. The Cargo Transporter with an Isolation Door in the corridor beyond and a blue door at the end of the corridor (as seen in DAGGER OF THE MIND) fits at the rear of Deck 23. This was later modified into a simpler Cargo Transporter platform with better access to the Cargo Lift.

4. The ladder in the Transporter Room (as seen in THE CAGE) could be in the Transporter Room on Deck 7 on the port side. It leads up to Environmental Lockers on Deck 6 and Deck 5. This could be how Bele and Lokai were able to get from the Bridge to Deck 3, then Deck 5, then a Transporter so quickly. However, Spock's narration of the chase is a bit disjointed and confusing.

5. Food dispensers (similar to those in Lounges or Mess Halls) were added to at least one Transporter Room as seen in THIS SIDE OF PARADISE and in TOMORROW IS YESTERDAY. This could be a Transporter Room on Deck 7 or Deck 23.

6. Transporter Rooms as seen in other episodes were probably those on Deck 7. One had a blank wall behind the console, one had a large view screen, and one had a second console with a hooded viewer.



DECK 23: TRANSPORTERS (Final Configuration) / CARGO
DECK 15 (Secondary Hull)



1



2a



2b



3



4



5



6

U.S.S. ENTERPRISE From STAR TREK [TOS]

LAYOUT: NOTES, SYMBOLS, ETC.

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EPISODES (in Production Order)

SEASON 1

1 - Where No Man Has Gone Before
2 - The Corbomite Maneuver
3 - Mudd's Women
4 - The Enemy Within
5 - The Man Trap
6 - The Naked Time
7 - Charlie X
8 - Balance of Terror
9 - What Are Little Girls Made Of?
10 - Dagger of the Mind
11 - Miri
12 - The Conscience of the King
13 - The Galileo Seven
14 - Court Martial
15 - The Menagerie, Part I
16 - The Menagerie, Part II
17 - Shore Leave
18 - The Squire of Gothos
19 - Arena
20 - The Alternative Factor
21 - Tomorrow Is Yesterday
22 - The Return of the Archons
23 - A Taste of Armageddon
24 - Space Seed
25 - This Side of Paradise
26 - The Devil in the Dark
27 - Errand of Mercy
28 - The City on the Edge of Forever
29 - Operation: Annihilate!

SEASON 2

30 - Catspaw
31 - Metamorphosis
32 - Friday's Child
33 - Who Mourns for Adonais?
34 - Amok Time
35 - The Doomsday Machine
36 - Wolf in the Fold
37 - The Changeling
38 - The Apple
39 - Mirror, Mirror
40 - The Deadly Years
41 - I, Mudd
42 - The Trouble with Tribbles
43 - Bread and Circuses
44 - Journey to Babel
45 - A Private Little War
46 - The Gamesters of Triskelion
47 - Obsession
48 - The Immunity Syndrome
49 - A Piece of the Action
50 - By Any Other Name
51 - Return to Tomorrow
52 - Patterns of Force
53 - The Ultimate Computer
54 - The Omega Glory
55 - Assignment: Earth

Episode callouts are shown like this: (40)

SEASON 3

56 - Spectre of the Gun
57 - Elaan of Troyius
58 - The Paradise Syndrome
59 - The Enterprise Incident
60 - And the Children Shall Lead
61 - Spock's Brain
62 - Is There in Truth No Beauty?
63 - The Empath
64 - The Tholian Web
65 - For the World Is Hollow and I Have Touched the Sky
66 - Day of the Dove
67 - Plato's Stepchildren
68 - Wink of an Eye
69 - That Which Survives
70 - Let That Be Your Last Battlefield
71 - Whom Gods Destroy
72 - The Mark of Gideon
73 - The Lights of Zetar
74 - The Cloud Minders
75 - The Way to Eden
76 - Requiem for Methuselah
77 - The Savage Curtain
78 - All Our Yesterdays
79 - Turnabout Intruder

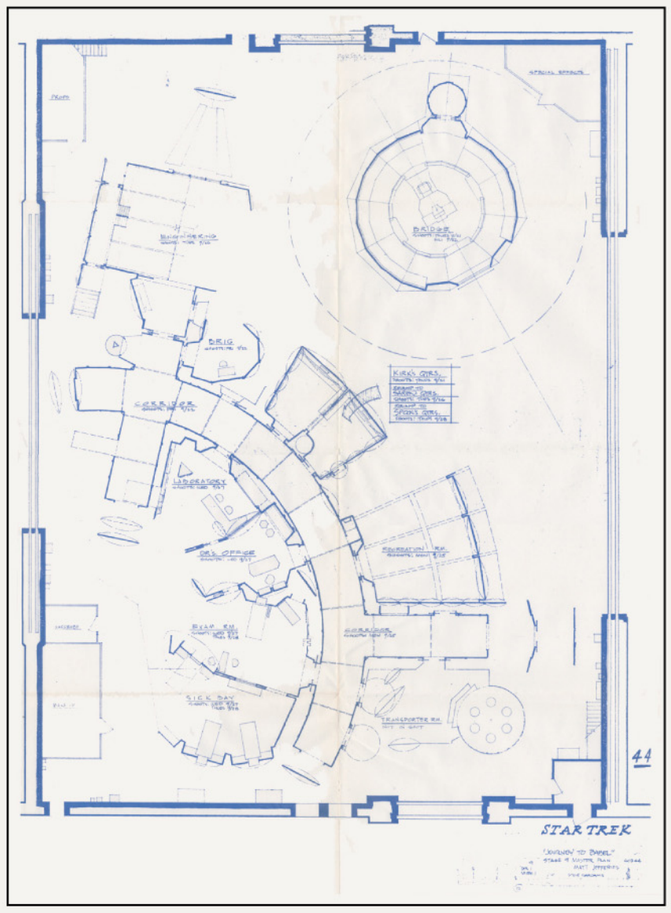
FIRST PILOT

0 - The Cage

ABBREVIATIONS

AA	-	ACTOR'S AREA
AL	-	AIRLOCK
BL	-	BIO LAB
C	-	CORRIDOR
CE	-	CHIEF ENGINEER
CMO	-	CHIEF MEDICAL OFFICER
CN	-	CHIEF NURSE
CNO	-	CHIEF NAVIGATOR'S OFFICE
CO	-	COMMANDING OFFICER
COO	-	COMMUNICATIONS OFFICER'S OFFICE
CON	-	CONVALESCENT WARD
CS	-	CHIEF OF SECURITY
CW	-	COLLAPSIBLE WALLS
DC	-	DECOMPRESSION CHAMBER
DN	-	DOWN
DO	-	DENTAL OFFICE
E	-	TURBO-ELEVATOR CAR
EE	-	ENVIRONMENTAL ENGINEERING
EL	-	ENVIRONMENTAL SUIT LOCKER
EM	-	TURBO-ELEVATOR MAINTENANCE
EMS	-	ENGINEERING MACHINE SHOPS
EO	-	CHIEF ENGINEER'S OFFICE
ES	-	ELEVATOR STANDBY / STORAGE
FO	-	FIRST OFFICER
IC	-	INSPECTION CORRIDOR
LAB	-	LABORATORY
LL	-	LANDING LEG
LLM	-	LANDING LEG MACHINERY
MN	-	DUTY NURSE
MO	-	DOCTOR'S OFFICE
MS	-	MEDICAL SUPPLIES
OBS	-	OBSTETRICS
OG	-	OBSERVATION GALLERY
OR	-	OPERATING ROOM
P	-	PORT (LEFT)
PLS	-	PLACES
PO	-	PSYCHIATRIST'S OFFICE
PWT	-	PIPING / WIRING TRUNK
S	-	STARBOARD (RIGHT)
SO	-	SECURITY OFFICE
SCO	-	SECURITY CHIEF'S OFFICE
ST	-	STORAGE
TE	-	THEATER EQUIPMENT
TL	-	TOILET
WR	-	WAITING ROOM
XE	-	TRANSPORTER EQUIPMENT
XR	-	TRANSPORTER ROOM
YO	-	YEOMAN'S QUARTERS

THE DESILU STAGE AT THE SAME SCALE



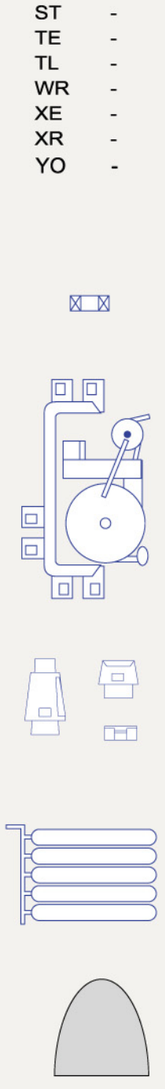
PLAN SYMBOLS



CHAIRS
TABLES
DINING TABLE
SHOWER, TUB
DRESSERS
BED
ROOM PARTITIONS
- White circular grille
- Red hexagonal grille
TOILET, SINK
LADDERS
STAIRS, RAILING
WALL and DOOR
TRAPEZOIDAL ISOLATION DOORS
AIR CONDITIONING EQUIPMENT
BATTERIES



MEDICAL DIAGNOSTIC BED
CONTROL CONSOLES
CIRCUIT BREAKERS
COMPUTERS
WATER PRESSURE SYSTEM
PHASERS
WATER PUMP MACHINERY
TREE, SHRUB
FOUNTAIN
HULL THICKNESS AT FLOOR LEVEL (Varies depending on hull curvature)



LAUNDRY UNIT
SANITARY WASTE RECOVERY SYSTEM
MATERIAL FABRICATION / RECLAMATION MACHINERY
STANDARD GASES
CURVATURE OF INNER FACE OF HULL (Used to show the undercut on Deck 7, the fantail on the Secondary Hull, and the bottom of the Secondary Hull)