



Tubac Fire District Needs Assessment Study

## Needs Assessment Process

- Review of Existing Conditions
- Review current and future
  - Staff and operational organization
  - Service goals
- Develop list of program spaces needed to support service mission
- NFPA Fire Station Design Guidelines
- Develop square footage needed based on needs
- Test existing site for suitability to support the needs
- Develop prototypical site layout with needs
- Develop budget



## Needs Assessment Process

- Review of Existing Conditions
- Existing station is an assembly of older structures, some meant to be temporary that limit functionality and operational flexibility.
- No automatic sprinkler system
- No site security
  - Protection of emergency equipment, fuel storage
  - District vehicles and personal vehicles

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## Needs Assessment Process

- Review of Existing Conditions
- No automatic sprinkler system
- Inadequate space
  - Low headroom & small bays limit type of apparatus that can be used
  - Clearance between equipment
- No ventilation of apparatus bays
- Back up into bays





## Needs Assessment Process

- Review of Existing Conditions
- Low and narrow clearance at garage doors
- No site security
- Tower location limits new construction

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## Needs Assessment Process

- Review of Existing Conditions
- Low clearance
- No site security
- Storage in non-conditioned shipping containers
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## Needs Assessment Process

- Review of Existing Conditions
- Doesn't comply with ADA
  - Kitchen
  - Restrooms
  - Door Clearances etc.
- No dedicated fitness area

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18-025 Tubac Fire District Station 1 Program Summary		12/12/2019	
Gross Area (sq. ft.)		Comments	
<b>Administration</b>			
Administration	5,269		
<b>Fire Station #1</b>			
Fire Station #1	8,754		
<b>Building Total</b>		<b>14,023</b>	
<b>Exterior Areas</b>			
Public Parking	44	size per training load- can share staff	
Staff Parking	16	6 staff + 10 fire fighter stalls	
Emergency Generator			
		<b>60</b>	

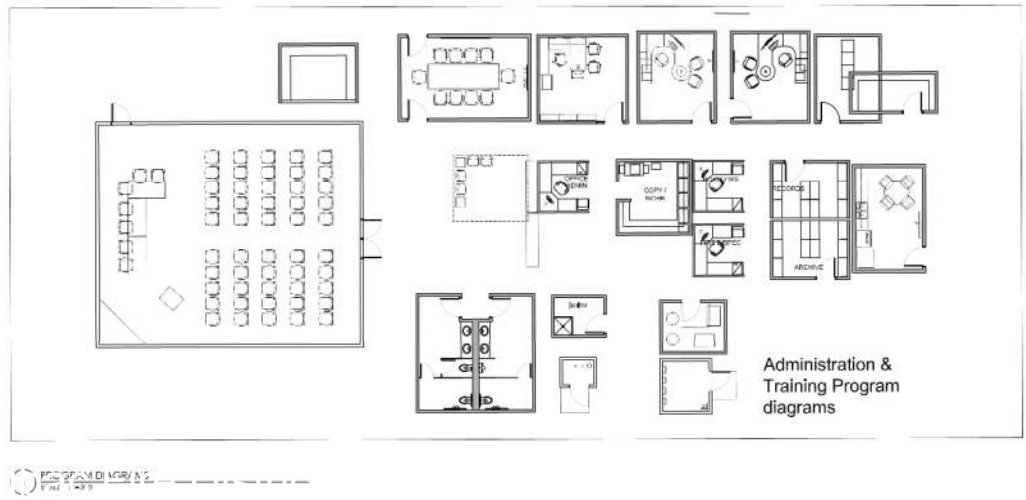
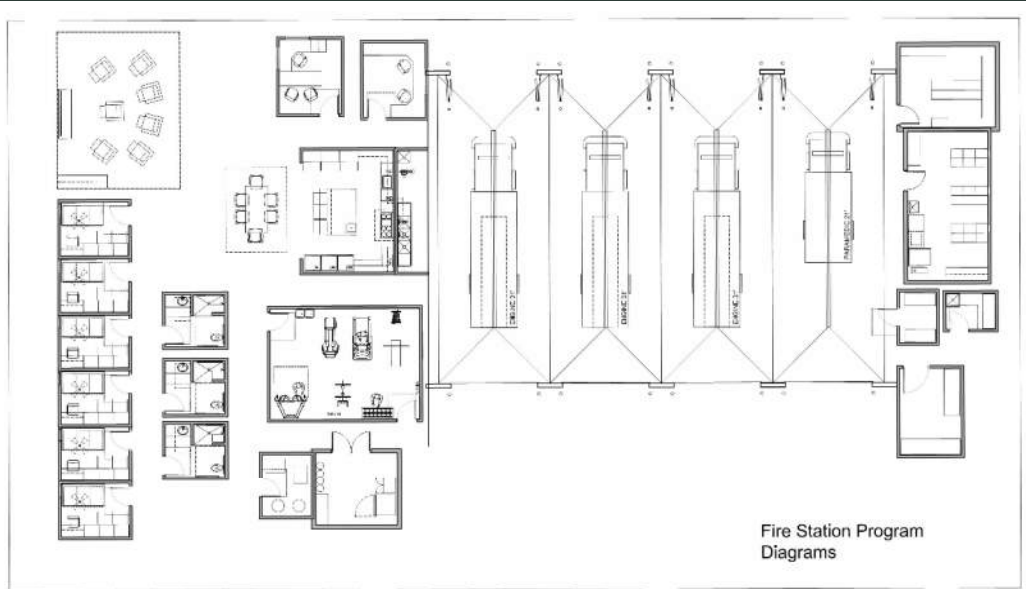
  

Tubac Fire Station 1 - Program			
Quantity	Room Size (sq. ft.)	Net Area (sq. ft.)	Comments
<b>Office and Public Spaces</b>			
Public Reception	0	140	0 in admin program
Public Restroom	0	56	0 in admin program
Captains' Office	1	120	
Firefighters' Study	1	120	2 # max
<b>Living Spaces</b>			
Dayroom	1	500	
Dining Room	1	150	150 dining table for 6
Kitchen	1	280	
Patio	1		exterior
Break Room	1	180	includes restroom
Shower	4	35	
Washroom	2	85	2-units ADA each with showers
Storage	1	50	
<b>Vehicle Spaces</b>			
Vehicle Bay	4	300	3600 drive through preferred 1 vehicle deep 18 x 50
Vehicle Bay			10'w x 8'w x 23'l
Vehicle Bay			12'w x 8'w x 32'l
Vehicle Bay			12'w x 8'w x 28'l
Vehicle Bay			9'w x 8'w x 25'l
Vehicle Bay			10'w x 8'w x 18'l
Vehicle Bay			drive through preferred 2 vehicle deep 18 x 70-ambulance and brush truck
Vehicle Bay	1	85	
Vehicle Bay	1	80	
Director	1	48	
Board workstation shared	1	48	
<b>Administration Division</b>			
Personnel Record Storage	1	100	
Archive Storage	1	100	20' linear shelves; banker boxes
		<b>200</b>	
<b>Net Square Footage Subtotal: 4,215</b>			
<b>25% for Structure and Circulation: 1,054</b>			
<b>Total Gross Square Footage: 5,269</b>			
<b>Net Square Footage Subtotal: 7,003</b>			
<b>25% Net-to-gross factor: 1,731</b>			
<b>Total Gross Square Footage: 8,734</b>			
<b>Staff Training: 12</b>			
<b>in admin program secured - enough for changing shifts</b>			

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- Review current and future
  - Staff and operational organization
  - Service goals
- Develop list of program spaces needed to support service mission
- NFPA Fire Station Design Guidelines



## Needs Assessment Process

- NFPA Fire Station Design Guidelines
- Develop square footage needed based on needs for each space



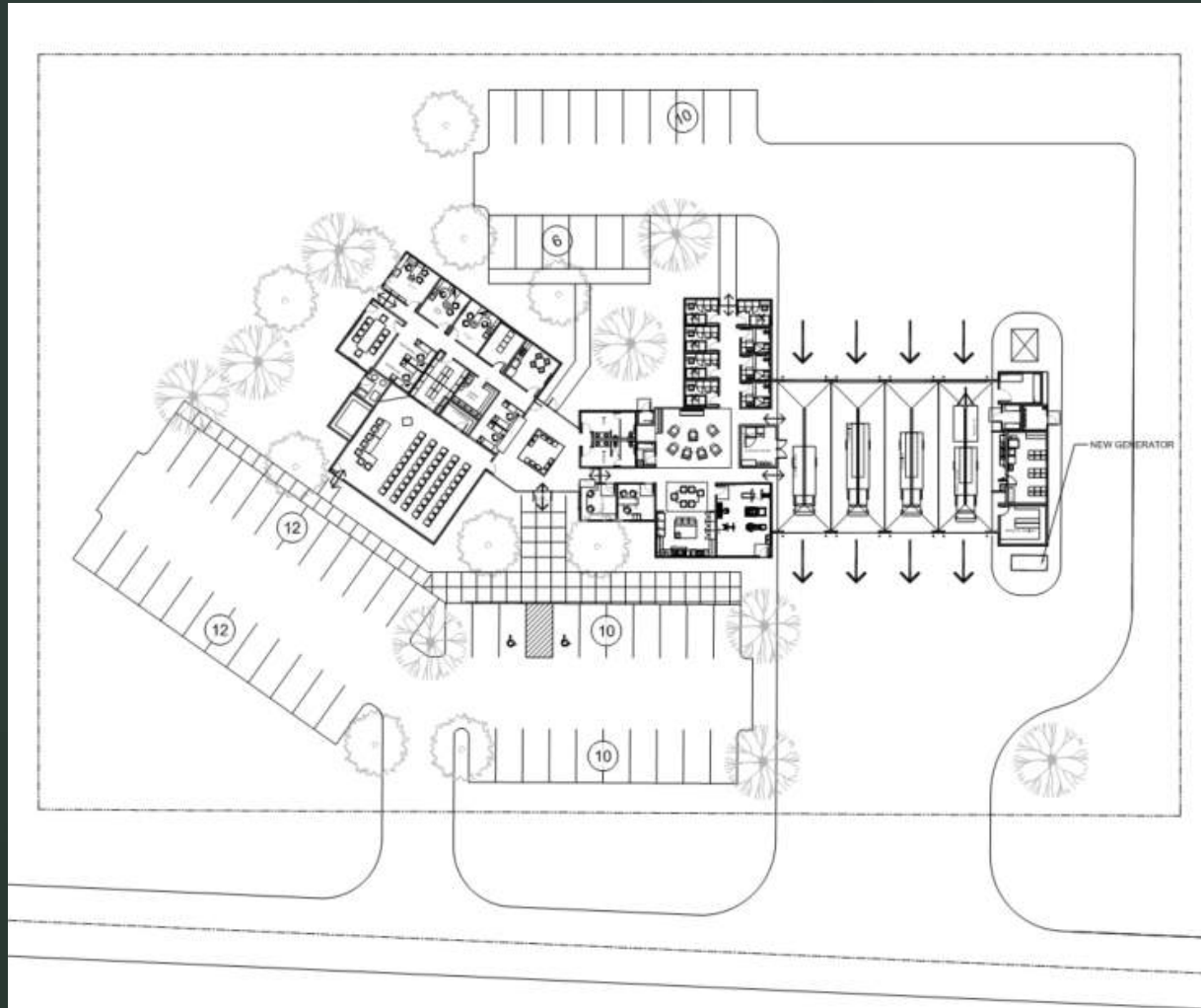


## Tubac Fire District Needs Assessment Study

### Needs Assessment Process

- Test existing site for suitability to support the needs
- Site is too small for the required needs
- Conflicting / unsafe circulation between public and fire vehicles
- Relocation of tower would be required
- Relocation of Firefighters would be needed during construction





## Generic Site Plan Concept

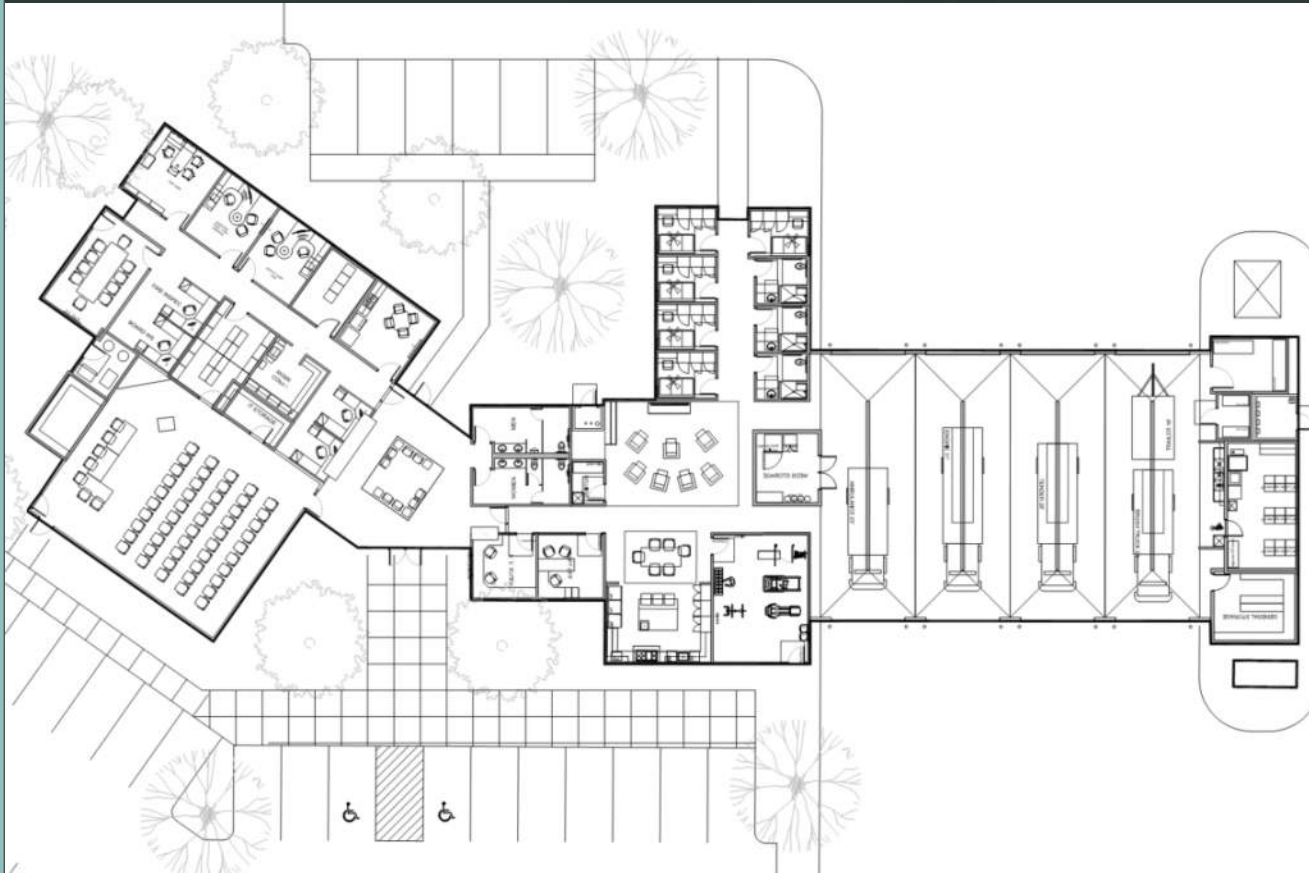
Site area required +/- 2 acres

Parking 44 public, 16 staff

- Secure staff parking
- Relocate fuel station
- Public entry & parking separate
- Fire apparatus response / return drives
- Connection to existing utilities (if available)

### Floor Plan Tabulations

Building Area	14,023 sf
New Administration Offices	5,269 sf
New Fire Station	8,754 sf



## Floor Plan Concept

Parking 44 public, 16 staff

Shared public entrance for Admin & Fire  
Shared public restrooms

Training Room / Board & Community Room  
Drive Through Apparatus Bays  
Public entry & parking separate  
Fire apparatus response / return drives  
Connection to existing utilities (if available)

### Floor Plan Tabulations

Building Area	14,023 sf
New Administration Offices	5,229 sf
New Fire Station	8,754 sf