

Conceptual Design – Advantages and Disadvantages

Shiawassee County Jail Feasibility Study

Options Advantages and Disadvantages

| Site Option 1: Existing Site | | Site Option 2: Probation/Parole Site | | Site Option 3: South Farm Site | |
|---|---|--|--|--|---|
| Advantages | Disadvantages | Advantages | Disadvantages | Advantages | Disadvantages |
| <ul style="list-style-type: none"> • Proximity to Courthouse • No utility Extension Anticipated • Public Familiarity with Site Location - Existing | <ul style="list-style-type: none"> • Requires Multiple Property Acquisition – Potential Adverse Effect of Project Schedule • Complicated Multiple Phase Construction – Longer Construction Duration • Potential Operational Disruption During Construction – Renovation of Occupied Building • Little to no Future Expansion Opportunity • Potential Higher Construction Cost Due to Urban Context – Exterior Building Image/Materials • Exist. Bldg. is in such poor condition, very little savings achievable • Potential Design Compromises Due to Existing Constraints • Further from State Highway • No Co-Occupancy of same Site with Probation/Parole – Staffing Inefficiencies | <ul style="list-style-type: none"> • No Property Acquisition Required • Simple Phase Construction - Shorter Construction Duration • No Potential Operational Disruption During Construction – No Renovation of Occupied Building • Opportunity for Future Expansion • Potential Lower Construction Cost Due to Remote Site – Exterior Building Image/Materials • Possible Re-use / Incorporation of Existing Parole Building into Complex • Closest to State Highway • Co-Occupancy of same Site with Probation/Parole – Staffing Efficiencies | <ul style="list-style-type: none"> • Remote form Courthouse – Potential Operational Cost Increase Due to Transportation • Minor Utility Extension Anticipated • Limited Public Familiarity with Site Location - New | <ul style="list-style-type: none"> • Simple Phase Construction - Shorter Construction Duration • No Potential Operational Disruption During Construction – No Renovation of Occupied Building • Opportunity for Future Expansion • Potential Lower Construction Cost Due to Remote Site – Exterior Building Image/Materials • Close Proximity to Courthouse | <ul style="list-style-type: none"> • Requires Property Acquisition • Remote form Courthouse – Potential Operational Cost Increase Due to Transportation • Major Utility Extension Anticipated • Limited to No Public Familiarity with Site Location – New • Further from State Highway • No Co-Occupancy of same Site with Probation/Parole – Staffing Inefficiencies |

Conceptual Design – Statement of Probable Cost



Site Option 1: Existing Site



Site Option 2: Probation/Parole Site



Site Option 3: South Farm Site

- **Total Project Budget**

- **Hard Construction Cost:**

- *“Bricks and Mortar”*
- *Demolition, Renovation, New Construction and Site Development*

- **Soft Costs Construction Related:**

- *Property Acquisition, Soils and Site Surveys, Design Fees, CM Fees, Financing, Permitting, etc.*

- **Soft Costs Occupancy Related:**

- *Furniture and Equipment*
- *IT and Audio/Visual*
- *Moving Expenses*

- **Component and Owner Contingencies**

- **Inflationary Factor**

- **Range of Probable Cost to Account for Variables in Materials, Labor and Bidding Climate**

Conceptual Design – Statement of Probable Cost

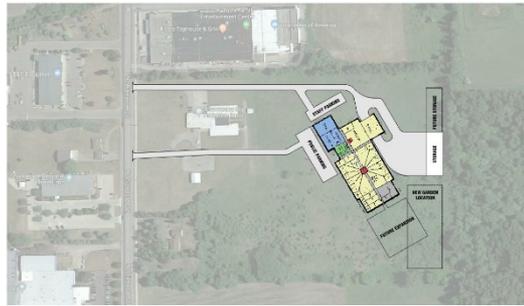
| Option 1 - Existing Site | | | Option 2 - Probation/Parole Site | | | Option 3 - South Farm Site | | |
|---|---------------------|------------------|---|----------------------|-----------------|---|----------------------|------------------|
| A. Hard Construction Cost | | | A. Hard Construction Cost | | | A. Hard Construction Cost | | |
| Range of Probable Cost | Total | Per/SF | Range of Probable Cost | Total | Per/SF | Range of Probable Cost | Total | Per/SF |
| Low | \$ 25,044,005 | \$ 429.78 | Low | \$ 23,119,664 | \$ 253.61 | Low | \$ 24,719,056 | \$ 271.16 |
| Mean | \$ 27,074,600 | \$ 405.39 | Mean | \$ 24,994,232 | \$ 274.18 | Mean | \$ 26,723,304 | \$ 293.14 |
| High | \$ 29,105,195 | \$ 499.47 | High | \$ 26,868,799 | \$ 294.74 | High | \$ 28,727,552 | \$ 315.13 |
| Total Mean Cost Per BGSF | | \$ 405.39 | Total Mean Cost Per BGSF | | \$ 274.18 | Total Mean Cost Per BGSF | | \$ 293.14 |
| Total Mean Cost % of Total Project Budget | | 73.60% | Total Mean Cost % of Total Project Budget | | 71.27% | Total Mean Cost % of Total Project Budget | | 70.27% |
| B. Soft Costs Construction Related | | | B. Soft Costs Construction Related | | | B. Soft Costs Construction Related | | |
| Low | \$ 5,445,629 | \$ 93.45 | Low | \$ 5,984,394 | \$ 65.65 | Low | \$ 6,896,638 | \$ 75.65 |
| Mean | \$ 5,887,167 | \$ 88.15 | Mean | \$ 6,469,615 | \$ 70.97 | Mean | \$ 7,455,824 | \$ 81.79 |
| High | \$ 6,328,704 | \$ 108.61 | High | \$ 6,954,836 | \$ 76.29 | High | \$ 8,015,011 | \$ 87.92 |
| Total Mean Cost Per BGSF | | \$ 88.15 | Total Mean Cost Per BGSF | | \$ 70.97 | Total Mean Cost Per BGSF | | \$ 81.79 |
| Total Mean Cost % of Total Project Budget | | 16.00% | Total Mean Cost % of Total Project Budget | | 18.45% | Total Mean Cost % of Total Project Budget | | 19.60% |
| C. Soft Costs Occupancy Related | | | C. Soft Costs Occupancy Related | | | C. Soft Costs Occupancy Related | | |
| Low | \$ 728,837 | \$ 12.51 | Low | \$ 658,130 | \$ 7.22 | Low | \$ 658,130 | \$ 7.22 |
| Mean | \$ 787,932 | \$ 11.80 | Mean | \$ 711,492 | \$ 7.80 | Mean | \$ 711,492 | \$ 7.80 |
| High | \$ 847,027 | \$ 14.54 | High | \$ 764,854 | \$ 8.39 | High | \$ 764,854 | \$ 8.39 |
| Total Mean Cost Per BGSF | | \$ 11.80 | Total Mean Cost Per BGSF | | \$ 7.80 | Total Mean Cost Per BGSF | | \$ 7.80 |
| Total Mean Cost % of Total Project Budget | | 2.14% | Total Mean Cost % of Total Project Budget | | 2.03% | Total Mean Cost % of Total Project Budget | | 1.87% |
| D. Total Probable Budget | | | D. Total Probable Budget | | | D. Total Probable Budget | | |
| Low | \$ 34,028,134 | \$ 583.95 | Low | \$ 32,440,785 | \$ 355.86 | Low | \$ 35,178,468 | \$ 385.89 |
| Mean | \$36,787,172 | \$ 550.82 | Mean | \$ 35,071,119 | \$384.72 | Mean | \$ 38,030,776 | \$ 417.18 |
| High | \$ 39,546,209 | \$ 678.65 | High | \$ 37,701,453 | \$ 413.57 | High | \$ 40,883,085 | \$ 448.47 |
| Total Mean Cost Per BGSF | | \$ 550.82 | Total Mean Cost Per BGSF | | \$ 384.72 | Total Mean Cost Per BGSF | | \$ 417.18 |
| Total Mean Cost % of Total Project Budget | | 100% | Total Mean Cost % of Total Project Budget | | 100% | Total Mean Cost % of Total Project Budget | | 100% |

Conceptual Design – Statement of Probable Cost Summary

Shiawassee County Jail Feasibility Study

Statement of Probable Cost Summary

| Option 1 - Existing Site | | | Option 2 - Probation/Parole Site | | | Option 3 - South Farm Site | | |
|---------------------------------|---------------------|------------------|----------------------------------|----------------------|------------------|---------------------------------|----------------------|------------------|
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| Total Mean Cost Per BGSF | | \$ 550.82 | Total Mean Cost Per BGSF | | \$ 384.72 | Total Mean Cost Per BGSF | | \$ 417.18 |



Conceptual Design – Anticipated Project Duration Schedule

- **Site Option 1: Existing Site – 31 to 40 Months Total**
 - **Design: 6 to 8 Months**
 - **Bidding: 1 to 2 Months**
 - **Construction: 24 to 30 Months**
 - *New Facility: 12 to 14 Months*
 - *Renovation: 12 to 16 Months*
- **Site Option 2: Probation/Parole Site – 19 to 24 Months Total**
 - **Design: 4 to 6 Months**
 - **Bidding: 1 to 2 Months**
 - **Construction: 14 to 16 Months**
 - *New Facility: 14 to 16 Months*
 - *Demolition of Existing Facility: 2 to 4 Months (Separate Project)*
- **Site Option 3: South Farm Site – 19 to 24 Months Total**
 - **Design: 4 to 6 Months**
 - **Bidding: 1 to 2 Months**
 - **Construction: 14 to 16 Months**
 - *New Facility: 14 to 16 Months*
 - *Demolition of Existing Facility: 2 to 4 Months (Separate Project)*

Conceptual Design – Probable Operational Budget

| 2018 Operational Budget | | | Statement of Probable Operational 2021 Budget | | |
|-----------------------------|--------------------------------|---------------------|---|--------------------------------|---------------------|
| Item | Description | TOTAL | Item | Description | TOTAL |
| Total Budget Summary | | | Total Budget Summary | | |
| A. | Staffing - All Departments | \$ 3,814,442 | A. | Staffing - All Departments | \$ 4,066,195 |
| B. | Dept. 301 Sheriff Operations | \$ 413,096 | B. | Dept. 301 Sheriff Operations | \$ 451,683 |
| C. | Dept. 310 Security | \$ 65,110 | C. | Dept. 310 Security | \$ 69,283 |
| D. | Dept. 333 Secondary Rd. Patrol | \$ 4,474 | D. | Dept. 333 Secondary Rd. Patrol | \$ 4,769 |
| E. | Dept. 351 Jail | \$ (70,500) | E. | Dept. 351 Jail | \$ (133,392) |
| Total Budget Summary | | \$ 4,226,622 | Total Budget Summary | | \$ 4,458,539 |

- **Net Operational Cost Increase: \$231,917**
 - *This cost can be offset with 20 additional out of county inmates.*

Conceptual Design – Executive Summary

- **Existing:**

- *Area: 25,571 BGSF*
- *Inmate Capacity: 132
(Not Including Intake)*
- *Jail Staffing: 26.5*
- *Operational Budget:
\$4,226,622*

- **Proposed:**

- *Area 62,786 BGSF*
- *Courthouse Sallyport Addition
4,000 BGSF*
- *Inmate Capacity: 220 (Not
Including Intake or Work
Release)*
- *Jail Staffing: 26.5*
- *Operational Budget: \$4,458,539*
- *(Net Operational Cost Increase:
\$231,917)*

Next Steps

- *Select Design Option*
- *Review and Approve Final Feasibility Study*
- *Determine Funding Mechanism and Millage Cost to Community*
- *Develop and Implement Millage Implementation*