



Indiana Finance Authority • Indiana Family & Social Services Administration
Indiana Neuro-Diagnostic Institute and Advanced Treatment Center
Feasibility Study Executive Summary
December 16, 2015





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Section 1: Introduction

A. Background

This feasibility study concerns the proposal to finance and build a new Neuro-Diagnostic Institute and Advanced Treatment Center in central Indiana. The study was prepared by the Indiana Finance Authority (IFA) and the Indiana Family and Social Services Administration (FSSA) to present to the State Budget Committee in response to the escalating need for high-quality psychiatric and addictions care within the state of Indiana.

As we enter Indiana's bicentennial year, leaders should take stock of Indiana's past achievements and focus on the future needs of the state's populace, especially the at-risk populations and the most vulnerable and needy residents. Mental illness and substance abuse rates have continued to rise nationwide, and available treatment options have not kept pace with the demand for services. In recognition of the poor access to care for the most mentally disabled, and the need to modernize our model of care, IFA and FSSA are requesting support from the Indiana General Assembly and State Budget Agency to proceed with this important modernization of our state hospital system.

The state of Indiana has consistently demonstrated a strong commitment to caring for its most vulnerable residents, including those living in poverty, with disabilities and impaired from psychiatric illnesses and brain diseases. Recognizing the advances in brain research and clinical care of mental disorders, the need for advancing the public mental health delivery system has become imperative. Thanks to strong government and business leadership, Indiana has become a national leader in medical research and health care innovation as evidenced by the successful BioCrossroads project and the robust pharmaceutical and medical device industry. In addition, our numerous healthcare systems are recognized nationally for excellence in medical research and translational sciences, bringing important innovations quickly to the bedside. Access to care has been a national priority and Indiana has responded including the highly successful rollout of the new Healthy Indiana Plan, known as "HIP 2.0," the nation's premier consumer-driven Medicaid reform plan. With all of these medical advances and innovations in Indiana, what continues to lag is the current system and limited access of our state mental hospitals. The call from our citizens, political leaders and the criminal justice community is to modernize our system and greatly increase access to high-quality psychiatric services across the state.

This feasibility study makes the clinical and business case for the eventual closure and decommissioning of LaRue D. Carter Memorial Hospital (LaRue Carter) on the west side of Indianapolis and the building of a new, rapid throughput neuro-diagnostic institute and advanced treatment center which will drive the modernization of the Indiana public mental health system. We respectfully request the support of the State Budget Committee to approve the concept and funding of this critical new facility.

"Unmet mental health needs remain a persistent and growing problem in Indiana, particularly for children."

Chief Justice Loretta H. Rush, Indiana Supreme Court



“FSSA deeply desires to counter this failing model. The financially sensible and morally appropriate way forward should include state hospitals which are safe, modern and efficient.”

B. History of Mental Health Care in Indiana

During the last 50 years, the supply of inpatient psychiatric beds in Indiana has largely vanished. In the 1950’s, Indiana had over 6,000 state public psychiatric hospital beds throughout 13 state-operated facilities (SOFs) for mental health and developmental disabilities. Today, the Indiana Family & Social Services Administration (FSSA) manages 800 beds spread over the five remaining adult hospitals and the one children’s facility. This decline in inpatient psychiatric capacity is a national phenomenon, which has worsened as community hospitals around the country have limited or closed their inpatient psychiatric beds. Outpatient programs and drug therapy can be less expensive than inpatient care but do not meet all the needs of many of the most impaired and seriously mentally ill residents in the Hoosier State.

Now, 30 years after the initial closures of seven state hospitals, we have seen that deinstitutionalization of the mentally ill population in Indiana has become “trans-institutionalization” into expensive and less therapeutic environments. As state hospital beds have closed, patients with chronic psychiatric disease and relapsing chemical dependency have moved to nursing homes, become homeless, been cared for in emergency departments and general hospitals and (most disturbingly) ended up in Indiana jails and prisons. The Indiana Department of Correction (IDOC) is one of the state’s largest mental health treatment providers. In addition to the many offenders in county and municipal jails, IDOC has approximately 30,000 incarcerated individuals, and nearly 20 percent of all inmates in Indiana’s prisons have a primary mental illness¹ while 80 percent are assessed with a need for substance abuse treatment². These often inappropriate placements have resulted in escalating personal and financial costs to the state and taxpayers. Indiana has declined to the lowest ranks of the 50 states (44th out of 50) in access to mental health care, hospital services for the mentally ill and treatment outcomes.³ Correctional psychiatry is complicated by legal, ethical and clinical challenges. The environment in correctional facilities is not conducive to the goals of psychiatric recovery. Once released, these mentally ill offenders have limited support and a confusing process for establishing treatment and ongoing recovery. High recidivism generates a vicious cycle of mentally ill patients moving between crisis hospitalization, homelessness and incarceration. Many of these individuals with treatment-resistant psychotic disorders are too unstable or unsafe for community placements, and the only choices may be homelessness, prison or an acute care hospital.

FSSA deeply desires to counter this failing model. The financially sensible and morally appropriate way forward should include state hospitals which are safe, modern and efficient. Pursuant to that challenge, the FSSA has actively engaged and evaluated its existing mental health delivery programs, faculty and facilities to determine the key drivers and partnership opportunities currently available in Indiana to promote a new model of SOF care delivery and best practices. Ultimately, the question arises as to the feasibility of a modern treatment model, its economic stability and the reduction of risks to Indiana resulting from inaction.

¹ *Adults with Behavioral health needs under Correctional Supervision*. Council of State Governments Justice Center. 2012.

² Indiana Department of Correction 2015 data

³ *Parity or Disparity: The State of Mental Health in America*. Mental Health America. 2015



C. Overview of Feasibility Study

This feasibility study begins with the history of the LaRue Carter Hospital facility and the 1997 "land swap" between the United States Department of Veterans Affairs (VA) and the state of Indiana. This resulted in the move of the only remaining central Indiana state hospital from the Indiana University medical campus to its present location, a former VA facility on Cold Spring Road in Indianapolis. Built in the 1930's, the facility is not designed to efficiently deliver modern day mental healthcare treatment. Despite prior efforts to modernize LaRue Carter, fundamental design limitations of the facility prohibited such an undertaking.

As patients have aged and presented with multiple medical conditions including dual diagnosis, the nature of clinical care in the state-operated facilities has changed. The need for co-located and integrated medical/diagnostic services has become essential for successful modern treatment protocols. Located miles away from an acute medical facility, LaRue Carter presents ongoing challenges to providing immediate access to comprehensive, integrated medical care.

In 2006, plans were made to replace LaRue Carter and sites plans and architectural drawings were completed with the intent to break ground on a new facility in 2008. However, with the downturn in the economy and the state budget constraints, plans were postponed. The need for a new facility and a new model of care has only escalated over the intervening seven years.

D. The New Model of Care

Since October 2014, a top priority at FSSA has been the integration of the six remaining SOFs into one cohesive hospital system. Leadership and clinical personnel from all SOFs have joined with FSSA leaders to form the Systems Integration Council (SIC). Integration planning work has gone very well, and the SIC is ready to take the next step in evolving Indiana's SOFs into a system ready to meet the current needs in the marketplace. Crucial to this integration is the development of a state-of-the-art neuro-diagnostic center which will drive the appropriate diagnosis and evidence-based treatment of the myriad and diverse patients referred into Indiana SOFs.

Discussions have also occurred with IDOC in order to collaborate and coordinate mental health services for inmates and develop more effective facility and diversion programs. In addition, Community Mental Health Centers (CMHC's) have been challenged to evolve their historical use of SOFs and begin to utilize the SOFs as a key clinical partner throughout the continuum of psychiatric care, not just the late stages of illness. Lack of access to these critical services has been a major driver for the escalating rates of recidivism, homelessness and health morbidity for seriously mentally ill and addicted citizens.



“...where modern genetic and imaging techniques will drive accurate diagnosis and appropriate treatment regimens.”

E. Summary of Proposal

It is imperative that plans be made to develop of a new central Indiana rapid throughput hospital, tentatively named the **Indiana Neuro-Diagnostic Institute and Advanced Treatment Center (NDI)**. This new facility represents a very novel model of care for Indiana, a state-of-the-art facility and not just a mere replacement of the current custodial SOF model.

The NDI is planned to be a Center of Excellence utilizing industry best practices, a hub for Indiana’s SOFs where modern genetic and imaging techniques will drive accurate diagnoses and appropriate treatment regimens which maximize recovery and stable community placements. In order to provide integrated medical and emergency services, a partnership with a leading Indiana health network partner equally committed to improved mental health treatment for the State is needed. The NDI should be placed on, and physically attached to, a major medical campus in central Indiana. This co-location will leverage the emergency services, specialty medical care and neuro-diagnostic techniques of the clinical partner and provide needed integrated medical services currently unavailable to patients throughout the state system.

Through a public Request for Information (RFI) process conducted in July 2015 with the Indiana Department of Administration (IDOA), Community Health Network (CHN) was selected as the clinical partner for the new NDI. CHN has been engaged by providing key information for this feasibility study, including the development of a letter of intent and term sheet outlining construction synergies and clinical shared services, resulting in significant construction and maintenance cost savings to the state. The proposed location of the NDI is on the Community Hospital East (CHE) campus.



Section 2: LaRue Carter Facility Assessment

As outlined in the introduction, an urgent need exists to create more inpatient capacity to better serve Hoosiers with mental illness and addictions. The Indiana State Legislature has authorized this feasibility study to consider the refurbishment or replacement of the LaRue Carter facility. The goal is to change the SOF's model of inpatient care with more rapid admission, diagnosis and treatment of patients. This section outlines the history and current state of LaRue Carter, as well as the costs of refurbishment of the facility. This feasibility study will illustrate that the cost of establishing a new state-of-the-art facility is more favorable than the costs of simply refurbishing the current facility.

A. History of the LaRue Carter Facility

The facility currently occupied by LaRue Carter was built by the United States Department of Veterans Affairs (VA) in 1931 as a non-ambulatory hospital to serve nation's veterans. Additions were made to the facility in 1988 and 1994 by the VA. In 1997 a land swap occurred between the VA and the State of Indiana that resulted in the move of the then central Indiana mental health state hospital located on the IU Health campus to the VA facility, called LaRue D. Carter Memorial Hospital when opened in 1997. The land is currently leased to the state of Indiana by the VA. The State of Indiana prepaid the entire lease in 1997.

B. Physical Structure Assessment

The LaRue Carter facility is deteriorating on nearly every level of its infrastructure. As an example, a visitor's first view when entering the hospital grounds is of the crumbling front steps, which are no longer used. Their limestone composition makes them expensive to replace, yet they are architecturally required because of the building's status on the Historic Register.

Changes to the facility occurring after the state took possession in 1997 have amounted to modest efforts to retrofit a facility designed for a completely different purpose nearly a century ago. Some examples of the physical limitations for which LaRue Carter must compensate include the following:

- There are no "hardened units." Therefore holes can easily be placed into walls. Furniture is not bolted down and can be picked up and thrown.
- Drop ceilings are present in areas in which contraband may be hidden.
- Deteriorating water pipes cause frequent flooding, especially in office areas where records might be damaged or destroyed.
- Medication rooms are poorly designed and inconveniently located, removing staff from direct patient supervision.
- The many winding corridors make line-of-sight observation of patients a challenge. Video monitoring is impeded by hallway configurations.
- Building temperatures in spring and fall are difficult to modulate with steam heat from the boilers, which do not operate year-round.
- Exits are difficult to monitor.
- Medically fragile patients are housed on the third floor, presenting impediments to emergency evacuations.



“LaRue Carter lacks the core infrastructure of a contemporary health care facility.”

- Ligature point risk is a major issue for accreditation under both CMS and The Joint Commission and must be carefully managed in the current facility because of the lack of recessed sprinkler heads and breakaway shower rods, door knobs and closet doors.

C. Health Care Delivery Assessment

As previously noted, the current facility was not designed to meet the needs of a mental health facility with ambulatory patients and active treatment plans. LaRue Carter lacks the core infrastructure of a contemporary health care facility. The design impedes observation and patient throughput. There are many “blind” spots and sharp corners which impede the hospital’s ability to provide optimal patient supervision. Because of this barrier, staff are required to remain posted at strategic positions located in the walkways of each unit in order to keep their eyes on the hallways to compensate for the design limitations of the facility. This causes an increase in staffing required to run the outdated facility.

Extensive transport requirements exist for patient medical interventions and treatments including for dialysis, radiation oncology, neurosurgery, mammograms, endoscopies and CT scans. In order to transport a patient to an off-campus appointment, a driver is required and in many cases two additional staff are deployed for supervision and safety protocols. Depending on the supervision a patient requires, sometimes a registered nurse may be required to accompany the patient.

Another safety concern exists for patients who remain on campus when staff personnel, as many as 18 a day, are out of the hospital for extended periods of time as chaperones for patient appointments. Although some staffing preparation is possible for planned/pre-scheduled appointments, it is not uncommon to have as many as five unscheduled appointments per day. Unscheduled appointments create additional management staffing challenges.

The benefit of locating the new facility on the campus of an acute care hospital is access to medical and specialty care which may be delivered on-site. The ongoing staff cost and risk associated with patients traveling off campus will be significantly reduced.

LaRue Carter has 29 double occupancy rooms, six triple occupancy rooms and four quadruple occupancy rooms. These multi-occupancy rooms represent a challenge for appropriate supervision and patient segregation. The new facility with single-occupancy rooms, will greatly mitigate these concerns.



Section 3: NDI Concept Plan

A. Key Drivers for the New Institute

As demand for mental health services continues to grow state-wide, the current trend among state hospitals has been to reduce the number of inpatient beds requiring that many chronically ill patients are cared for in community-based centers. Many community hospitals have curtailed or closed their inpatient psychiatric beds. Patients are then moved in to various outpatient treatment programs with variable success. As outpatient care is voluntary, it is difficult to insure compliance, and severely ill patients frequently fail. It is then left to emergency departments or local jails to triage and arrange care for these impaired individuals. This challenge is exacerbated by the absence of a central, flagship facility which is able to effectively assess and triage patients to deliver the most effective treatment and provide adequate inpatient care.

What is needed is a new model of care spearheaded by the proposed NDI. Through a partnership with CHN, co-located on the CHE campus with the presence of an acute care hospital and primary-care facilities, NDI will meet the following goals and objectives set by FSSA and SIC:

- A short-stay, **neuropsychiatric diagnostic unit** which will enable neuro-diagnostic assessments to be conducted upon entry in to the state hospital system. The capability to perform these services enables refinement of diagnoses, information about patient brain structure and function, and guidance on treatment. The unit will leverage proximity to Community Hospital East, the clinical partner on the shared campus.
- **Dual diagnosis units** which will serve as single points of entry for patients with dual-diagnoses conditions such as intellectual and developmental disabilities or substance abuse/chemical dependency and mental illness.
- **Specialized evaluation and treatment programs** which will address complicated, severely ill and treatment-resistance patients.
- A **clinical research unit** which will leverage the expertise and resources within the overall state of Indiana public and private health system partner community for assessing patients for new treatment as well as developing biomarkers to better diagnose and treat psychiatric illness.
- **Forensic units** which will support the criminal justice system including IDOC and provide state of the art assessment and care for inmates with mental illness.
- **Evidence-based practice implementation programs** which will assist and monitor the implementation of best practices throughout the network of SOFs.

In addition, the NDI will function as the hub for all SOFs. This “hub and spoke” model will provide the ability to move patients to the appropriate facility, based on treatment option needs.

“The planned forensic treatment unit at the new Neuro-Diagnostic Institute will provide an opportunity for stabilization and expert treatment planning for some of the most ill offenders.”

**Bruce Lemmon,
Commissioner,
Indiana Department
of Correction**

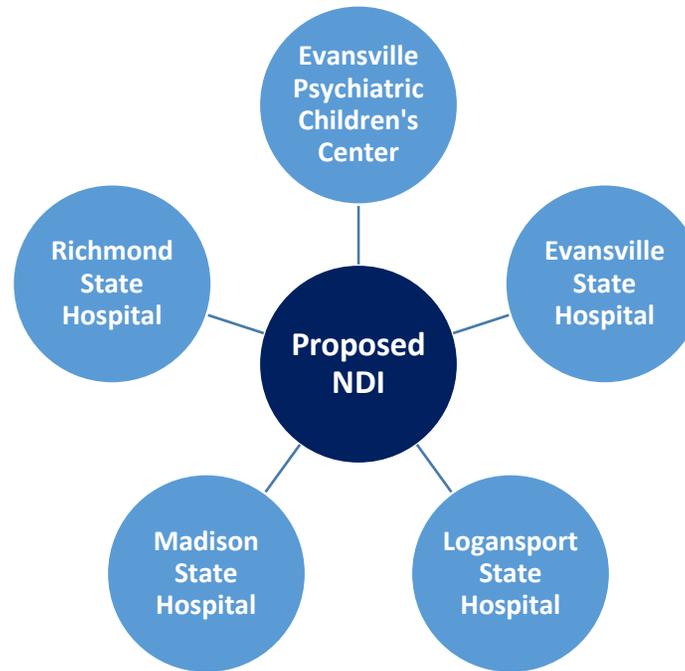


Figure 1: Hub and Spoke Continuum of Care Model with NDI as Central SOF

Overall, the NDI will provide a more complete continuum of care for all residents with mental health concerns and serve as a model for mental health service delivery nationally.

B. Community Health Network Partnership

As stated previously, the NDI will be located on the **Community Hospital East (CHE)** campus, through a partnership with **Community Health Network (CHN)**. The NDI will have its own separate building, but will be connected to the main CHE building. While consistent with the architecture of the campus, the NDI will have its own unique identity. The timing of this project dovetails with CHN's current \$175 million renovation of its CHE campus.

Having the NDI located on the CHE campus is a unique opportunity for a state hospital. Currently, state hospital patients who need medical interventions are transported off campus for care. The logistics of staffing these transports can be quite impactful. The NDI will be able to leverage the co-located clinical expertise for primary care, specialty consults, emergency treatment and inpatient acute care. The partnership with CHN also presents the opportunity to leverage shared services such as food service, laundry, lab, maintenance, grounds and environmental services.



The NDI will be a state-of-the-art teaching and research facility. The opportunity remains for continued collaboration with medical schools and research partners. The NDI will have the ability to leverage resources across the full health care landscape of the State. The vision is an ongoing collaboration with CHN and other partners for staffing, residents and research.

C. Patient Population Impact

SOFs in Indiana currently operate with a long term focus which is very custodial in nature. The average length of stay currently ranges from 12-24 months. By utilizing the NDI, a new model of care will be instituted. The new model will have a greater focus on assessment and advanced diagnostics resulting in more focused, specialized treatment and the ability to move patients through the system at a much higher rate, decreasing the average length of stay. This new model is not possible without a new facility as all current SOFs are not designed or equipped to provide this type of service delivery.

The opening of NDI, will allow for the discontinuation of operations at the LaRue Carter facility. As the transition date approaches, LaRue Carter will discharge and step-down patients as appropriate. Patients who need continued treatment will either transition to units at the NDI, or will be transferred to another SOF. See section **G. Transition to New Facility and LaRue Carter Disposition** below, for additional detail.

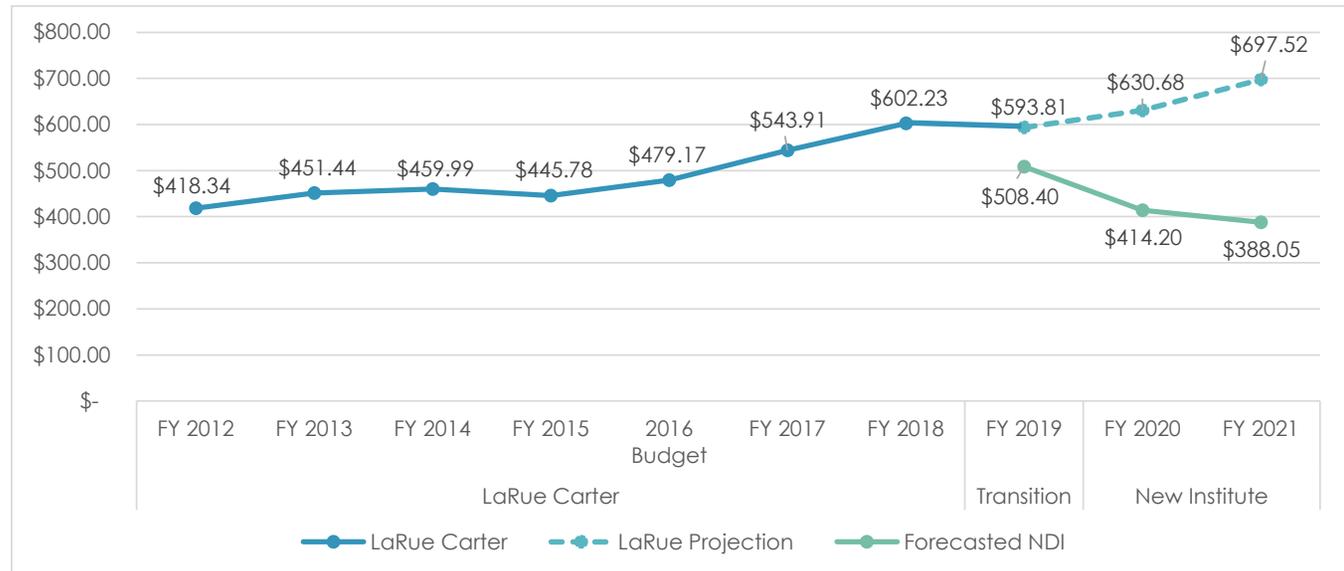
“... it has become increasingly clear that Indiana is in need of additional diagnostic opportunities for children suffering from mental illness.”

Judge Mary Beth Bonaventura, Director, Indiana Department of Child Services



D. Impact to the State of Indiana

The following graph depicts the annual changes to the state impact per patient days as shown above. The state impact per patient day at LaRue Carter without the NDI is depicted for reference purposes as a dashed line:



As demonstrated in the graph above, the transition to the NDI has a significant effect on the cost per patient day. By the time the facility reaches full projected operating capacity in FY 2021, the cost per patient day is projected to be \$388.05, which represents a reduced state impact of \$205.76 per patient day compared to the final full year of LaRue Carter operations (FY 2018) and a reduced state impact of \$309.47 from the state impact per patient day projected for LaRue Carter in FY 2021, if the NDI project is not completed. This represents a significant savings to the state of Indiana.

E. Quality of Care

The quality of care for patients in the NDI will be greatly impacted by the modern layout and infrastructure, the specialized treatment units, and the clinical programming being provided. Changes to care delivery made possible by the NDI and CHN partnership will allow the state to treat people at earlier stages of their brain disease process. The higher throughput model will allow for quicker assessments using advanced diagnostics. Patients will efficiently move to specialized treatment units throughout the system of SOFs.



The partnership with CHN and co-location on an acute care campus allows for greater collaboration with a network of behavioral care providers and an outpatient care continuum. The potential for integrated care (medical/behavioral) for patients will far surpass efforts under the current model.

Building a new facility will allow the State to efficiently design the layout of the patient units, allowing for much greater focus on clinical quality in a healing environment. As a center of excellence, the new institute will employ evidence-based protocols to achieve optimal clinical outcomes and be a model for other programs around the nation.

F. Summary Patient Programs/Units

As a 159 bed facility, the NDI is designed to be a highly flexible space that may be configured as needed. An anticipated bed arrangement is summarized below, to meet current patient needs:

- **Adolescent (30-bed unit)** – Patient population will be youth ages 13-17 years. Diagnostic services will be provided on a 90-120 day stay model for youth patients with Early Onset Schizophrenia. Treatment for youth with Substance Use Disorder will also be a possibility.
- **Child (12-bed Unit)** – Patient population will be children ages 6-12 years and will include children who have Autism Spectrum Disorder/Developmental Disabilities. Commensurate with acuity issues NDI staff will be trained in specialized treatment modalities.

The Child and Adolescent units will need access to and input from occupational therapy, art therapy, music therapy, dietary, pharmacy, academic schooling and speech therapy.

- **Adult Severe Mental Illness (15-bed unit)** – Adults with severe mental illness (primarily mood disorders, psychosis, dementia and personality disorders). Patients on this unit will typically have multiple prior failed inpatient psychiatric treatment courses. Patients discharged from this unit will be stable enough for outpatient or group home placement.
- **Research (12-bed unit)** – A clinical research unit which leverages expertise and resources for assessing adult and child/adolescent patients for new treatment as well as developing biomarkers to better diagnose and treat psychiatric illness. Patient population includes adults or children and adolescents who qualify for individual research studies. Treatment modality includes research-based psychopharmacologic, psychotherapeutic trials; neuro-imaging and genetic studies.
- **Forensic (24-bed unit)** – The forensic unit will provide dedicated beds to support the IDOC and provide state-of-the-art assessments and care for inmates with mental illness.
- **Assessment and Diagnostic Unit (15-bed unit)** – A short-stay, neuro-psychiatric diagnostic unit that enables neuro-diagnostic assessments to be conducted upon entry into the state hospital system. The capability to perform these services enables refinement of diagnoses, information about patient brain structure and function, and guidance on treatment for adult patients with an uncertain diagnosis and patients who may not typically be served by the existing state hospital system due to lack of clarity surrounding appropriate treatment setting (dementia, developmental disabilities, severe personality disorders, etc.). The unit will allow for clarification of diagnosis and readiness to transfer to either the most appropriate inpatient unit or to discharge the patient to an outpatient setting.

“...the transition from the current model of care at LaRue Carter to the increased throughput model under which the NDI will function as the central “hub” and point-of-entry to the system of SOFs.”



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- **Acute (15-bed unit)** – The acute unit will serve adult patients with acute symptoms of psychiatric illness or disorder who require a safe, therapeutic environment to support re-stabilization.
- **ID/DD / SMI Dual Diagnosis (12-bed unit)** – Specialized unit which will serve patients with a dual-diagnosis condition of intellectual and developmental disabilities and mental illness. This includes individuals 18 years or older who have been diagnosed with an intellectual or developmental disabilities (ID/DD) in the mild or moderate severity level, with an onset during the developmental period which includes both intellectual and adaptive functioning deficits in conceptual, social and practical domains.
- **Substance Use / Severe Mental Illness (12-bed unit)** – Specialized unit which will serve patients with a dual-diagnosis condition of both major psychiatric (Severe Mental Illness-SMI) and Substance Use Disorders (SUD). Treatment will be geared toward addressing acute stabilization, ongoing treatment, relapse prevention and continuity of care follow-up.
- **Stabilization (12-bed unit)** – Specialized evaluation and treatment unit for the treatment of complicated, severely ill and treatment resistance patient. Adults with chronic, refractory mental illness and/or complex medical needs. Patients admitted to this unit will typically have multiple prior mental health inpatient treatment failures (including state hospital stays). Patients discharged from this unit will be able to step down to other state hospital units or group home setting.

In addition to the patient units, there will be a court at the hospital, to provide judicial proceedings, as needed, through a partnership with the criminal justice community.



G. Transition to New Facility and LaRue Carter Disposition

Transitioning to the NDI may be modeled after the successful site transition of Eastern State Hospital (ESH) in Kentucky which followed a highly engaged design including staff participation in the planning phase and new site orientation for hospital staff. Generally recognized as a best practice in health care facilities, incorporating lead and service line clinicians during the design phase of a new facility engenders the vested interest of workers. This vesting can be promoted by evaluating existing work flow improvement opportunities and clearly communicating with hospital staff how they can benefit from participating in concept and design of the new NDI. It is the intent of NDI to follow this practice.

Another important component of the transition plan will be the management of patients and guiding their expectations. Given the fragile nature of patients with psychosis and mental handicaps, abrupt or surprising environmental changes can result in negative patient reaction and confusion. The NDI will follow the example of ESH, which saw success from providing substantial early notice to patients by gently introducing the concept of relocation and transition to a new environment. Visual messaging queues and staff interaction will be slowly introduced into the patient environment, ideally building to excitement and positivity in anticipation of the move.

Given the rapidly deteriorating state and constant site restoration disruptions at LaRue Carter, it is FSSA's expectation that patients may respond favorably to the opportunity for a new and updated environment. Such was the case in Kentucky (which replaced a very similar dated and declining facility like LaRue Carter) and after conducting a well-thought-through and orchestrated pre-move campaign, ESH was able to move all patients in a single one-day event.

It is anticipated that there will need to be a one month overlap where both facilities will be operational and able to care for patients at the same time. Additional costs have been projected in FY 2019, the transition year, to account for this one month period.

Disposition of LaRue Carter and VA Lease

The FSSA and VA intend to work together to agree upon a mutually acceptable disposition of the lease. FSSA and VA are currently discussing the details related to FSSA's proposed disposition of the lease. Potential options include, but are not limited to, termination or assignment of the lease and acquisition of the property by a third party. There have been initial discussions with organizations who may be interested in the property, but conversations are in very preliminary stages. While the lease does not require the state to continue to operate a hospital on the property, if FSSA is unable to agree to an alternative arrangement with the VA or otherwise shift its obligations with respect to the property to a third party, the state will be responsible for maintaining certain portions of the property for the remainder of the lease.



“...offer[s] the state of Indiana and residents an excellent solution to the ever-changing process of providing exceptional yet cost-effective care to this very specific patient population.”

H. Construction Plan

The NDI design package has been developed over the past five months, in collaboration among FSSA, CHE and the consultants, architects and engineers at John Klipsch Consulting LLC, TEG Architects, BSA Lifestructures, TRC Engineering and Pepper Construction. The entire project team has focused on planning and designing this innovative project which brings together the best practices of public and private neuro-diagnostics and patient care. The results offer the state of Indiana and residents an excellent solution to the ever-changing process of providing exceptional yet cost-effective care to this very specific patient population.

The NDI is proposed to be located on the northeast corner of the existing CHE campus, with the primary façade facing East 16th street. The existing campus contains approximately 27.8 acres and is occupied by the existing the CHE facility, professional medical office buildings, associated drives, and surface and structured parking.

The proposed NDI consists of approximately 240,000 gross square feet and is planned to house 159 patients. The total site disrupted by construction will be approximately four acres, and the proposed building footprint is approximately one acre. Parking for NDI will be provided onsite in dedicated parking near the front entrance as well as general and reserved spaces in the other parking areas.

A detailed space program was created in conjunction with the design plans and is the basis for facilities and services being planned. This program includes:

- Public and Patient Services
- Operational Services
- Inpatient Services
- Support Services
- Displaced CHE Services

Additional outdoor space is available in grassy areas, including approximately 1.7 acres of common space.

The new construction is comprised of two elements, including the NDI/CHE Connector (Connector) and Central Energy Plant (CEP), as well as the NDI Tower. The Connector and CEP will house logistical services and major mechanical and electrical equipment to service not only NDI but also CHE. The tower consists of a partial lower level and seven levels above grade. The main entrance to NDI faces East 16th Street and offers the NDI with a separate and distinct entrance to allow for its own identity.

Coordination between the NDI project and the CHE construction project are currently underway and will be an ongoing operation. Primary phasing and construction coordination between the two projects has been accomplished at a conceptual design level. Detailed conceptual renderings of the NDI may be viewed in **Appendix A: Conceptual Design**.



I. Construction Cost Comparison

The cost comparisons below were prepared to validate the estimate assumptions made by the project’s construction consultant, Pepper Construction. As a result of this comparative research, FSSA’s project consultants are confident that the \$118.7 M proposed budget to design and construct the NDI project is appropriately sized.

FSSA - NDI Building		CHE - New Tower		Hartgrove Hospital		Eastern State Hospital		
Indianapolis, IN		Indianapolis, IN		Chicago, IL		Lexington, KY		
20 Months Duration		24 Months Duration		16 Months Duration		24 Months		
October 2018 Completion		July 2018 Completion		October 2007 Completion		February 2013 Completion		
239,744 SF		265,323 SF		91,559 SF		298,360 SF		
159 Beds		155 Beds		59 Beds		300 Beds		
Item	Quantity	Cost	Cost	Cost/SF	Cost	Cost/SF	Cost	Cost/SF
Grand Total Cost	\$118,763,863	\$495.38	\$131,706,840	\$496.40	\$37,826,038	\$413.13	\$141,529,854	\$474.40

J. Project Timeline

The construction of NDI is anticipated to begin in the first quarter of 2016, with final completion in September 2018. A complete construction timeline is provided on the following pages.



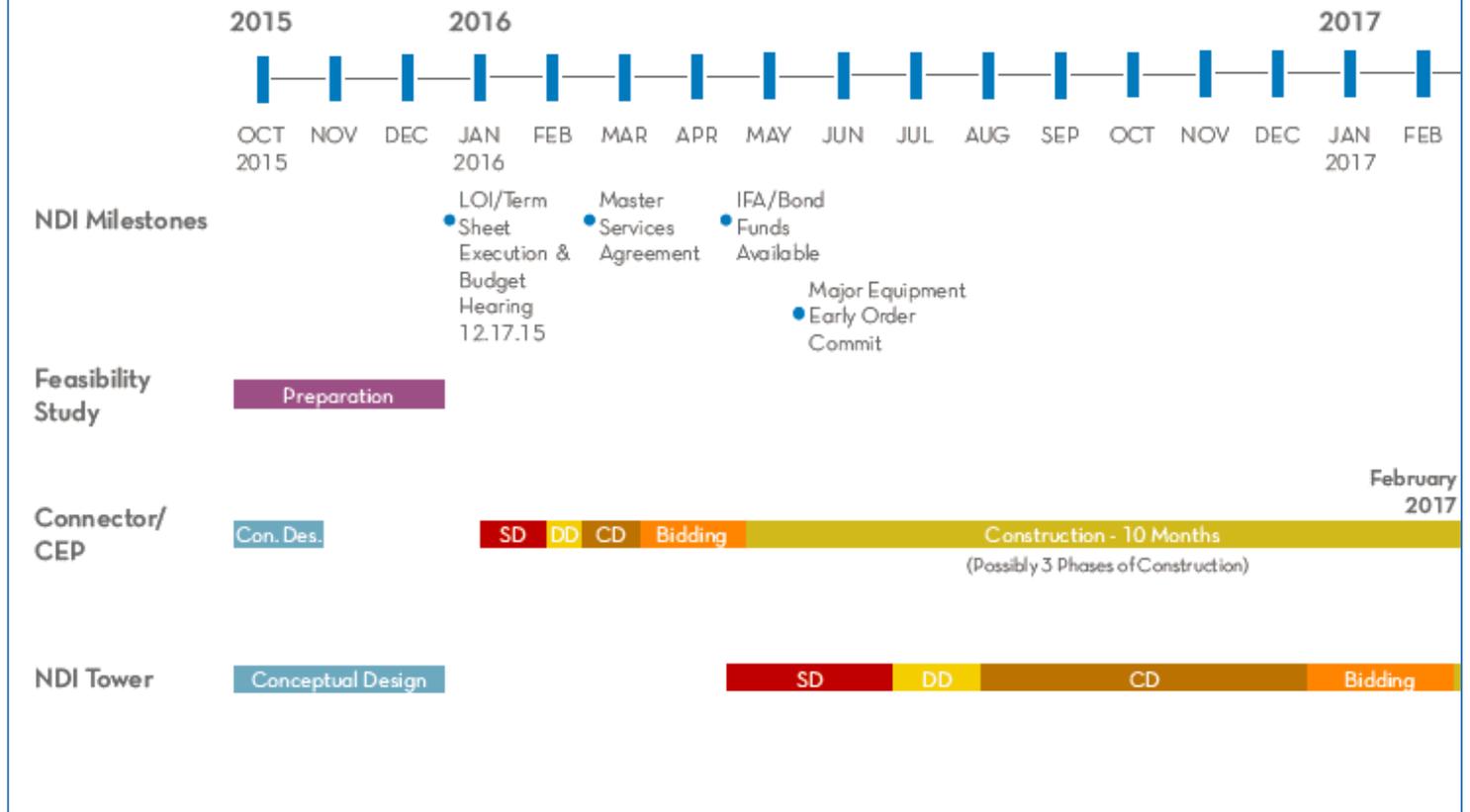
“Mental Health America of Indiana provides its strong support for any and all efforts to make the planned Neuro-Diagnostic Institute a reality in Indiana.”

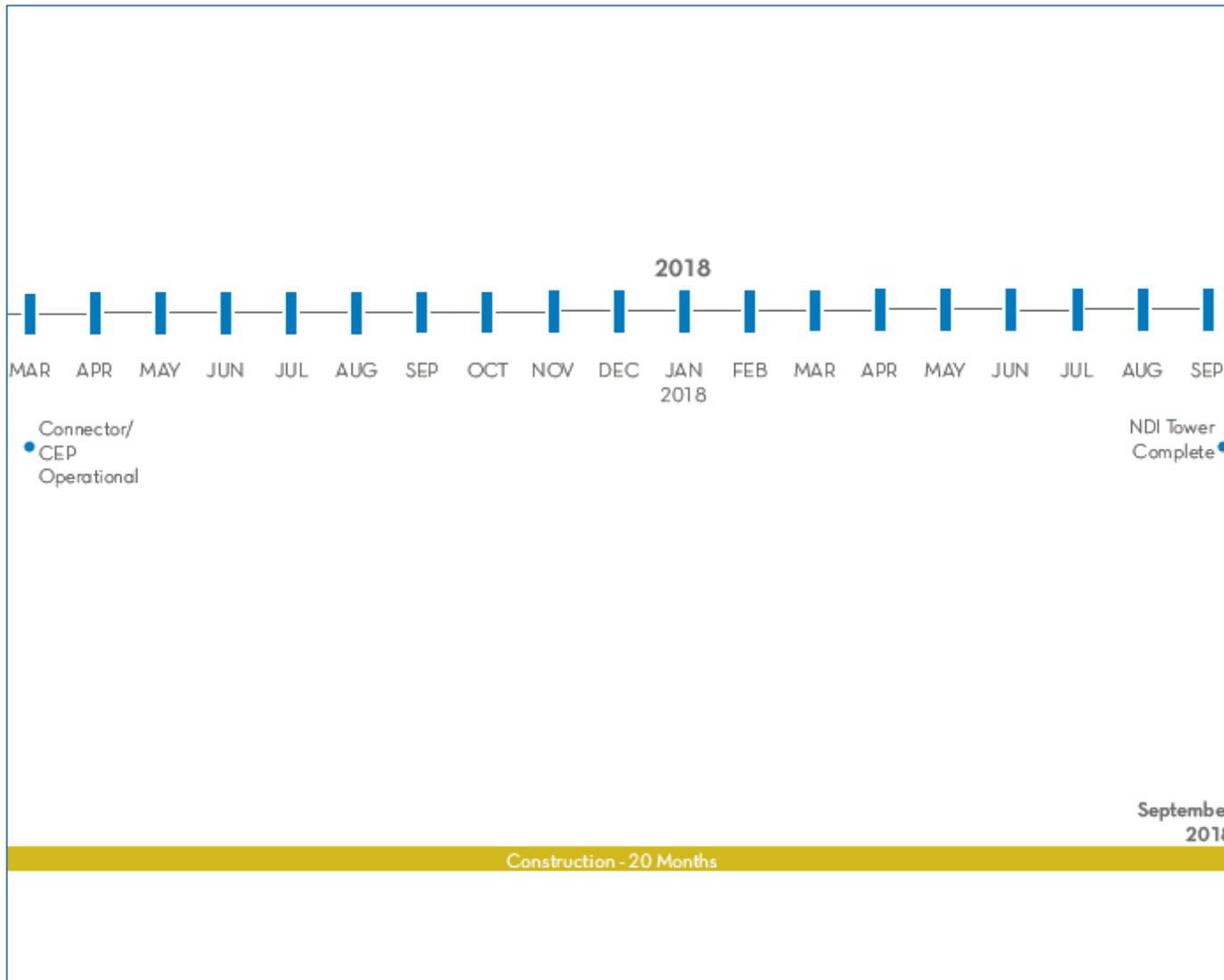
Stephen C. McCaffrey, President and Chief Executive Officer, Mental Health America of Indiana

NEURO DIAGNOSTIC INSTITUTE

Project Development Timeline

26 OCTOBER 2015







“...it is anticipated that this structure will be the most cost effective and result in the lowest overall costs to the state of Indiana.”

Section 4: NDI Financing Plan

A. Background

IC 4-13.5-1-18 provides for the Indiana General Assembly to authorize the IFA to undertake a project for the construction, equipping, purchasing, leasing, renovation, refurbishing, or alteration for the LaRue D. Carter Memorial Hospital including the borrowing of money or the issuance and sale of bonds, or both, under IC 4-13.5-4.

The proposed financing plan for the NDI is based on information provided to IFA by the feasibility study team including but not limited to project costs and timing, as well as other data developed by the IFA from participation in financing similarly structured bond transactions. In addition, the IFA has engaged a municipal advisor to assist the IFA with the proposed financing.

Given the information known at this time, the IFA proposes to issue a bond anticipation note (BAN) followed by a long-term bond issue to refund the BAN. As outlined below, it is anticipated that this structure will be the most cost effective and result in the lowest overall costs to the state of Indiana while at the same time respecting the constraints of the projects and considerations of stakeholders.

B. Plan of Finance

Two Stage Process

The two primary projects identified by the NDI team include the construction of the Connector and the NDI Tower. The construction of the Connector project is anticipated to begin in May 2016. However, construction of the NDI Tower is currently scheduled to begin in February/March of 2017. In order to reduce borrowing costs and to better align project timing with available project funding, the IFA plans to issue a short term financing (BAN) for the Connector project as opposed to funding the entire cost of both project components at one time. In February 2017, the IFA will execute a takeout or refunding of the BAN with the issuance of a long term bond issue that will provide for both the payment of the BAN and the additional funds needed to complete the NDI Tower and fund costs of issuance.

- **Stage 1 - BAN Issuance.** The IFA proposes to issue a BAN in May 2016 that will provide for a \$25 million project fund for use in constructing the Connector and planning phase of the tower plus any issuance costs.
- **Stage 2 – Long Term Bond Issuance.** In February 2017, the IFA intends to enter the bond market to price fixed rate bonds anticipated to mature in Fiscal Year 2039 for the final funding needs of the projects. The bond proceeds generated will be used to (1) retire the BAN (principal and accrued interest), (2) fund capitalized interest through March 2019, (3) fund the final stages of the project, and (4) fund bond issuance costs including legal fees, municipal advisory fees, underwriting fees, etc.

The long term bonds will be structured as standard appropriation backed lease rental bonds. Appropriations would be limited to no more than \$10.9 million per year, for 20 years. The first appropriation would be for the state fiscal year beginning July 2019 and the last for the fiscal year 2039. Capitalized interest will be required because (1) lease payments cannot be made until the project is substantially complete and/or ready for occupancy



and (2) bondholders will require payment during the same time period. IFA anticipates capitalizing interest for the period beginning on the date the BAN is issued through and including March 2019. The NDI Tower is anticipated to be completed in September 2018; however, municipal bond ratings require an additional capitalized interest period (with a minimum cushion of six months past expected completion) in case there are project delays.

Taxable

Both the BAN and the final takeout will be issued as taxable bonds. After discussions with IFA bond counsel, IFA’s review of CHN’s recently implemented finance plan (which concluded to not use tax-exempt bonds to finance its CHE campus improvement), and analyzing the proposed structure and nature of the project, the IFA has recommended that the project be financed with taxable bonds. Use limitations would be placed on the financed facilities if a tax exempt bond issue were utilized. Such use restrictions would impede potentially desirable long-term service agreements, space sharing arrangements, research arrangements and other innovations absent each of them being with an entity doing so as part of their individual qualified 501(c)(3) uses. Partnering and other innovative arrangements with any non-501(c)(3) use would not be possible. Proving and documenting each use qualifies as a 501(c)(3) use and ensuring so at a time of heightened IRS scrutiny of the entire 501(c)(3) area would be expected to produce material inefficiencies. This lack of certainty and additional compliance costs, were key factors in determining the tax status of the bonds.

Benefits of BAN/Long Term Bond Structure

The benefits of the two-stage approach are twofold. First, the issuance of the BAN will result in a reduction of capitalized interest since the period for capitalized interest is shortened. Second, there will be overall debt service savings by reducing the cost of carry since the IFA would not be bond funding for the full project amount up-front. The IFA and municipal advisor have analyzed the cost of comparing the proposed structure to a single long term issuance. **As shown in the table below, though anticipated costs of issuance would be greater, the overall savings is approximately \$4.9 million.**

Bond Structure	Cost of Issuance	Capitalized Interest	Cost of Carry	Total Benefit
Bond Only	\$ 2,744,829	\$ 14,315,171	\$ 66,587,414	\$ 83,647,414
BAN/Bond Structure	3,405,754	10,964,246	64,403,641	78,773,641
Benefit/No Benefit	\$ (606,925)	\$ 3,350,925	\$ 2,183,773	\$ 4,873,773

**Based on Rates as of 10/19/2015*

This financing plan puts in place a structure that is feasible and efficient when considering all conditions needed to finance this project.



Section 5: Conclusion and Support for the NDI

As outlined in this Feasibility Study, there is a critical need to increase inpatient treatment options for mentally ill Hoosiers by changing the current model of care. This could be accomplished through renovation of LaRue Carter or building a new state-of-the-art facility. While renovating LaRue Carter is possible, it comes with a significant price tag of approximately \$105M, on a property only leased through 2031. The renovation of LaRue Carter would also only address the physical building requirements, not the need to be in closer proximity to an acute care facility to provide patients and staff with more efficient access to primary and acute care treatment needs. The more beneficial option is to build a new facility by partnering with CHN. By building the proposed NDI on the campus of CHE, the state will be partnering with an acute care and primary care provider, and will realize the benefit beyond the current timeline of the LaRue Carter lease. While the capital investment is more costly at approximately \$118M, the long term benefit is greater to our residents through the CHN partnership.

NDI is supported by many leaders in the community. Please join these leaders in supporting a new facility to bring a much needed mental health care facility to an underserved Hoosier population.

Chief Justice Loretta H. Rush - Indiana Supreme Court

“Unmet mental health needs remain a persistent and growing problem in Indiana, particularly for children. The expansion of services as set out in the new Neuro-Diagnostic Institute to be built in Indianapolis will help towards meeting this need.”

Bruce Lemmon, Commissioner - Indiana Department of Correction

“In our efforts to reduce recidivism, appropriate treatment programs for the offender population is imperative. The Department of Correction looks forward to the partnership with FSSA for the treatment of offenders with severe mental illness. The planned forensic treatment unit at the new Neuro-Diagnostic Institute will provide an opportunity for stabilization and expert treatment planning for some of the most ill offenders. Ongoing consultation with the clinical staff at the institute will support the continuing treatment upon the offender’s return to DOC.”

Judge Mary Beth Bonaventura, Director - Indiana Department of Child Services

“Over the 31 years as Juvenile Court Judge, and during my three years as director of the Indiana Department of Child Services, it has become increasingly clear that Indiana is in need of additional diagnostic opportunities for children suffering from mental illness. The necessity for residential treatment for high needs children suffering from complex mental health issues is critical.”



Matthew G. Brooks, President and Chief Executive Officer - Indiana Council of Community Mental Health Centers, Inc.

“The Indiana Council of Community Mental Health Centers supports the state of Indiana’s effort to develop a Neuro-Diagnostic Institute in order to improve access to mental health and substance use care for our most vulnerable citizens. The Family and Social Services Administration should be commended for pursuing innovative treatment options that will enhance access to mental and health and substance use services while managing costs to the health care system.”

Stephen C. McCaffrey, President and Chief Executive Officer - Mental Health America of Indiana

“Mental Health America of Indiana considers itself a strong partner with FSSA and DMHA to promote mental wellness in Indiana. This is very much the case as it relates to the planned Neuro-Diagnostic Institute. The Institute is expected to make systems change throughout the Indiana service delivery system as a center of excellence for treatment expertise and consultation—as well as a training ground to respond to the behavioral health workforce development shortage. MHA sees this as an opportunity to make significant strides in mental health as well as addiction treatment in both the health care arena as well as the criminal justice setting. Given the focus on crisis intervention, stabilization and treatment planning, the Institute is expected to make a significant contribution in the area of treatment in lieu of incarceration and reducing recidivism. Mental Health America of Indiana provides its strong support for any and all efforts to make the planned Neuro-Diagnostic Institute a reality in Indiana.”



Section 6: About This Report – Feasibility Study Team

This Feasibility Study was conducted on behalf of the Indiana Finance Authority through a collaborative process of many public and private sector partners. Below is an acknowledgement to the many partners on this project.

State of Indiana Agencies

- Indiana Finance Authority
- Indiana Family & Social Services Administration

Private Sector Partners

- BSA LifeStructures
- Community Health Network
- Community Hospital East
- Crowe Horwath LLP
- Faegre Baker Daniels LLP
- John Klipsch Consulting LLC
- Pepper Construction Company of Indiana
- TEG Architects
- TRC Worldwide Engineers



Section 7: Appendix



Appendix A: Conceptual Design

Aerial View from Northwest - Proposed with NDI



Ground View from Northwest – Proposed NDI





**Indiana Finance Authority • Indiana Family & Social Services Administration
Indiana Neuro-Diagnostic Institute and Advanced Treatment Center Executive Summary**

Aerial View from North



Site Plan-Proposed Neuro-Diagnostic Institute



