WAYNE STATE UNIVERSITY
STUDENT CENTER BUILDING
LOADING DOCK LEAK REPAIRS
5221 GULLEN MALL  DETROIT, MI
WSU No. 034-282276

OWNER
WAYNE STATE UNIVERSITY
5454 CASS AVENUE
DETROIT, MICHIGAN 48202

STRUCTURAL ENGINEER
DESAI NASR CONSULTING ENGINEERS
6765 DALY ROAD
WEST BLOOMFIELD, MICHIGAN 48322

ARCHITECT
NEUMANN/SMITH ARCHITECTURE
400 GALLERIA OFFICENTRE, SUITE 555
SOUTHFIELD, MICHIGAN 48034

STAGING PLAN
NOTE:
DO NOT PLACE HOT-TANKS WITHIN 25 FEET OF ANY BUILDING.
NEW 4" TOPPING SLAB ON INSULATION, PROTECTION BOARD, DRAINAGE BOARD AND WATERPROOFING, ON EXISTING STRUCTURAL SLAB. REINFORCE W/ EPOXY COATED 6x6 W1.4xW1.4 W.W.F. PLACED @ MID DEPTH.

MATCH SLOPE OF EXISTING SLAB. PREP EXISTING SLAB TO RECEIVE WATERPROOFING PER MANUFACTURER'S INSTRUCTIONS.

NEW CONCRETE STAIRS.

INFILL W/ 6" SLAB ON GRADE W/ 6x6 W2.9xW2.9 W.W.F. PLACED @ MID DEPTH ON MIN. 4" COMPACTED GRANULAR FILL.

PROVIDE CONTROL JOINTS IN TOPPING SLAB ALONG EACH BEAM LINE AND @ 15'-0" O.C. MAXIMUM SPACING THROUGHOUT.

EXISTING GENERATOR ON STEEL PLATFORM.

EXISTING ELECTRICAL MANHOLE.

EXISTING WATER, STEAM, AND / OR SANITARY LINES. VERIFY ALL EXISTING UTILITIES IN FIELD PRIOR TO DEMOLITION.

REMOVE EXISTING PIPE BOLLARD AND ENTRY SLAB (IF PRESENT) AND REPLACE TO MATCH EXISTING AS NECESSARY TO COMPLETE WORK AS DESCRIBED.

REMOVE EXISTING RAMPS DURING CONSTRUCTION AND STORE FOR DURATION OF PROJECT. REPLACE TO MATCH EXISTING ONCE CONCRETE WORK IS COMPLETED.

REMOVE EXISTING PARKING BUMPERS DURING CONSTRUCTION AND STORE FOR DURATION OF PROJECT. REPLACE TO MATCH EXIST. ONCE CONCRETE WORK IS COMPLETE.

EXISTING TRASH COMPACTOR AND ELECTRICAL CONNECTION. RELOCATE AS NECESSARY TO COMPLETE CONCRETE WORK.

NOTES
1. VERIFY EXISTING SLAB ELEVATION IN FIELD. MATCH EXISTING SLOPE.
2. THE ORIGINAL FRAMING AND CONCRETE CONFIGURATION SHOWN IS BASED ON EXISTING DRAWINGS AND LIMITED FIELD OBSERVATIONS. THE LOCATION AND SIZE OF EXISTING ELEMENTS NEED TO BE FIELD VERIFIED IN ALL AREAS WHERE THE EXISTING STRUCTURE IS MODIFIED OR REPAIRED.
3. FIELD VERIFY ALL EXISTING COLUMN LINES, BEAM CENTER LINES, SLAB EDGES, AND OPENING SIZES AND LOCATIONS.
4. SUBMIT ALL CONSTRUCTION EQUIPMENT LOADS TO ARCH / ENGINEER PRIOR TO USE ON SUPPORT SLAB AREA.
5. REFERENCE DRAWINGS S001 GENERALSTRUCTURALNOTES S002 SPECIALINSPECTIONREQUIREMENTS
BREAK UP AND REMOVE EXISTING 4" TOPPING SLAB THROUGHOUT SHADED AREA. REMOVE EXISTING INSULATION AND WATERPROOFING LAYERS. DO NOT DAMAGE STRUCTURAL SLAB BELOW.

BREAK UP AND REMOVE EXISTING 4" TOPPING SLAB AT HIGH SIDE OF LOADING DOCK THROUGHOUT SHADED AREA. REMOVE EXISTING INSULATION AND WATERPROOFING LAYERS. DO NOT DAMAGE STRUCTURAL SLAB BELOW.

REMOVE EXISTING EXPANSION JOINT COVER, IF PRESENT.

DO NOT CUT OR DAMAGE SLAB AT NORTH SIDE OF LOADING DOCK.

SAW-CUT AND REMOVE PORTION OF SLAB-ON-GRADE BEYOND BASEMENT WALL TO ALLOW NEW WATERPROOFING TO LAP OVER BASEMENT WALL. COORD. W/ WATERPROOFING REQUIREMENTS.

REMOVED DAMAGED CONCRETE COVER OVER EXISTING CONCRETE WALL.

EXISTING GENERATOR ON STEEL PLATFORM.

EXISTING ELECTRICAL MANHOLE.

EXISTING WATER, STEAM, AND SANITARY LINES. VERIFY ALL EXISTING UTILITIES IN FIELD PRIOR TO DEMOLITION.

EXISTING PIPE BOLLARD AND ENTRY SLAB (IF PRESENT) AND REPLACE TO MATCH EXISTING AS NECESSARY TO COMPLETE WORK AS DESCRIBED.

REMOVE EXISTING RAMPS DURING CONSTRUCTION AND STORE FOR DURATION OF PROJECT. REPLACE TO MATCH EXISTING ONCE CONCRETE WORK IS COMPLETED.

REMOVE EXISTING PARKING BUMPERS DURING CONSTRUCTION AND STORE FOR DURATION OF PROJECT. REPLACE TO MATCH EXIST. ONCE CONCRETE WORK IS COMPLETE.

EXISTING TRASH COMPACTOR AND ELECTRICAL CONNECTION. RELOCATE AS NECESSARY TO COMPLETE CONCRETE WORK.

NOTES:
1. CORE TEST OPENING TO DETERMINE ACTUAL THICKNESS OF TOPPING SLAB PRIOR TO BEGINNING DEMOLITION. DO NOT CORE THROUGH STRUCTURAL SLAB BELOW.
2. PROTECT EXISTING FACADE OF BUILDING AND OTHER AREAS NOT INCLUDED IN DEMOLITION.
3. CONTRACTOR SHALL PROVIDE MEANS & METHODS PLAN FOR WORK ON SUPPORTED STRUCTURAL SLAB INCLUDING EQUIPMENT LOADS TO A/E FOR REVIEW PRIOR TO BEGINNING WORK. MEANS AND METHODS TO PERFORM WORK SHALL NOT COMPROMISE EXISTING STRUCTURE.

1/8" = 1'-0"
ENLARGED REPAIR PLAN (LOWER LEVEL REFLECTED CEILING)

PHOTO REFERENCES:
- Existing slab spall / cracking
- Typical slab cracking
- Steel beam corrosion
- Shallow slab spall / cracking
- Moderate slab spall / cracking
- Concrete wall / slab spall
- Steel beam corrosion (top flange)

NOTES:
1. PLAN VIEW SHOWS UNDERSIDE OF LEVEL 1 STRUCTURE AS VIEWED FROM LOWER LEVEL.
2. PROTECT EXISTING FINISHES AND OTHER ELEMENTS NOT INCLUDED IN REPAIR SCOPE, INCLUDING FIRE WATCH DURING WELDING OPERATIONS.
3. SIZE AND LOCATION OF REPAIR ITEMS ARE APPROXIMATE. FIELD VERIFY ALL EXISTING CONDITIONS AND QUANTITIES.
4. IDENTIFY ALL ELECTRICAL CONDUITS, LIGHTING, AND PLUMBING TO BE DISCONNECTED AND / OR RELOCATED TO ALLOW FOR WORK TO BE PERFORMED.

DESIGNATIONS:
-WithData beam corrosion
-WithData crack at inside face of concrete wall above structural slab
-WithData crack in underside of structural slab shown
-WithData crack at inside face of concrete wall above structural slab
-WithData crack at inside face of concrete wall above structural slab
-WithData crack at inside face of concrete wall above structural slab
-WithData crack at inside face of concrete wall above structural slab
-WithData concrete repair, approximately 2" deep
-WithData concrete repair, approximately 2" deep
-WithData concrete repair, approximately 2" deep

EXISTING BASEMENT WALL W/ CONCRETE PIERS AT EACH COLUMN LINE
OVERHEAD CONCRETE REPAIR, APPROXIMATELY 3" MAX. DEPTH.
OVERHEAD CONCRETE REPAIR, APPROXIMATELY 1" DEEP
PARTIAL DEPTH REPAIR TO INSIDE FACE OF LOADING DOCK WALL ALONG SHADED LENGTH. APPROXIMATELY 3" MAX. DEPTH.
EXISTING EXPOSED 10" STRUCTURAL SLAB CEILING THROUGHOUT.
AREA BELOW LOADING DOCK CONTAINS LARGE NUMBERS OF CONDUITS AND PIPING. REVIEW IN FIELD. INCLUDE $5,000 ALLOWANCE IN BID FOR REMOVAL / REPLACEMENT OF DUCTWORK AND CONDUITS.
EXISTING PARTITION WALLS. V.I.F. TYP.
LAP W/ EXIST WATERPROOFING. BASEMENT WALL. PROVIDE 6" MIN. WRAP WATERPROOFING LAYER BARS INFILL. REF TO PLAN

1/2" PREMOLDED JOINT.

EXPANSION JOINT DETAILS

SECTION @ EXPANSION JOINT

TRANSITION AT NEW / EXIST. TOPPING SLAB

TYPICAL TOPPING SLAB

SECTION @ BASEMENT WALL

SECTION @ LOADING DOCK

SECTION @ EXTERIOR STAIR

SECTION ALONG LINE 13

TYP - SLAB CONTROL JOINT

TRANSITION @ NEW/EXIST. SLAB