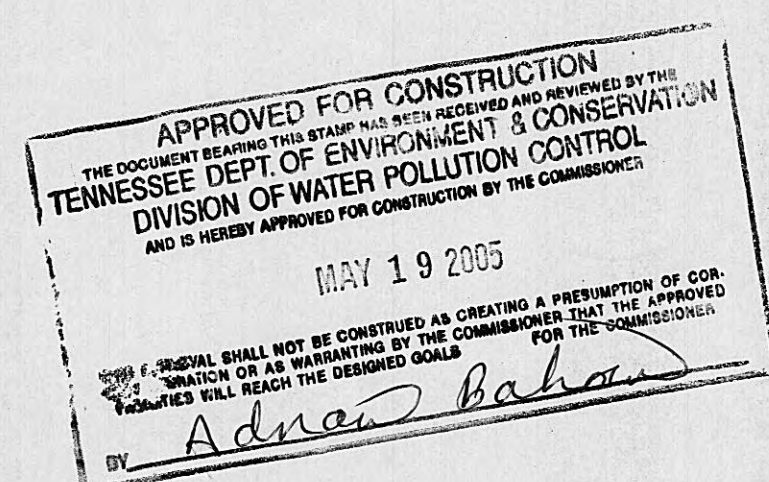
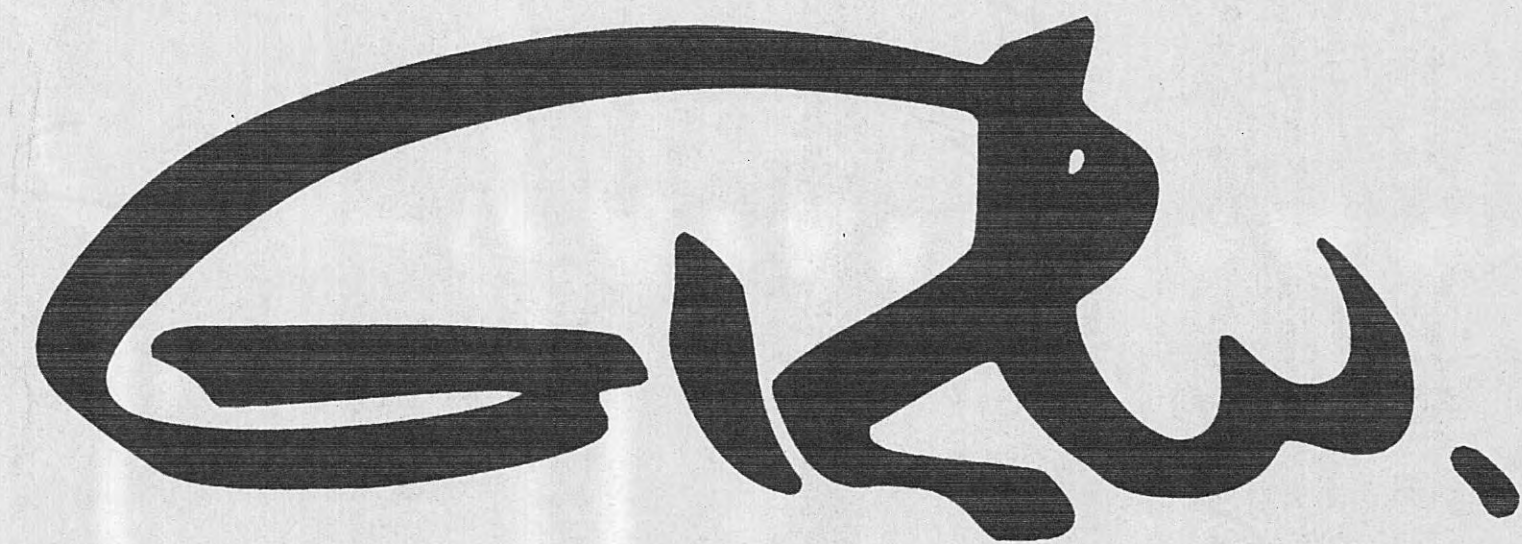
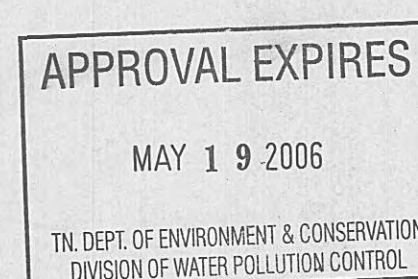


CONSTRUCTION PLANS
FOR
WASTEWATER SYSTEM IMPROVEMENTS
HARRIMAN UTILITY BOARD
HARRIMAN, TENNESSEE
CHERRY STREET AND WALNUT HILL
PUMP STATION REHABILITATION

C.D.B.G. PROJECT NO. GG-05-11567-00
CONTRACT S05-01
JANUARY 2005



WPC 05-0452



GRW Elrod Dunson, Inc.
Engineers, Architects, Planners

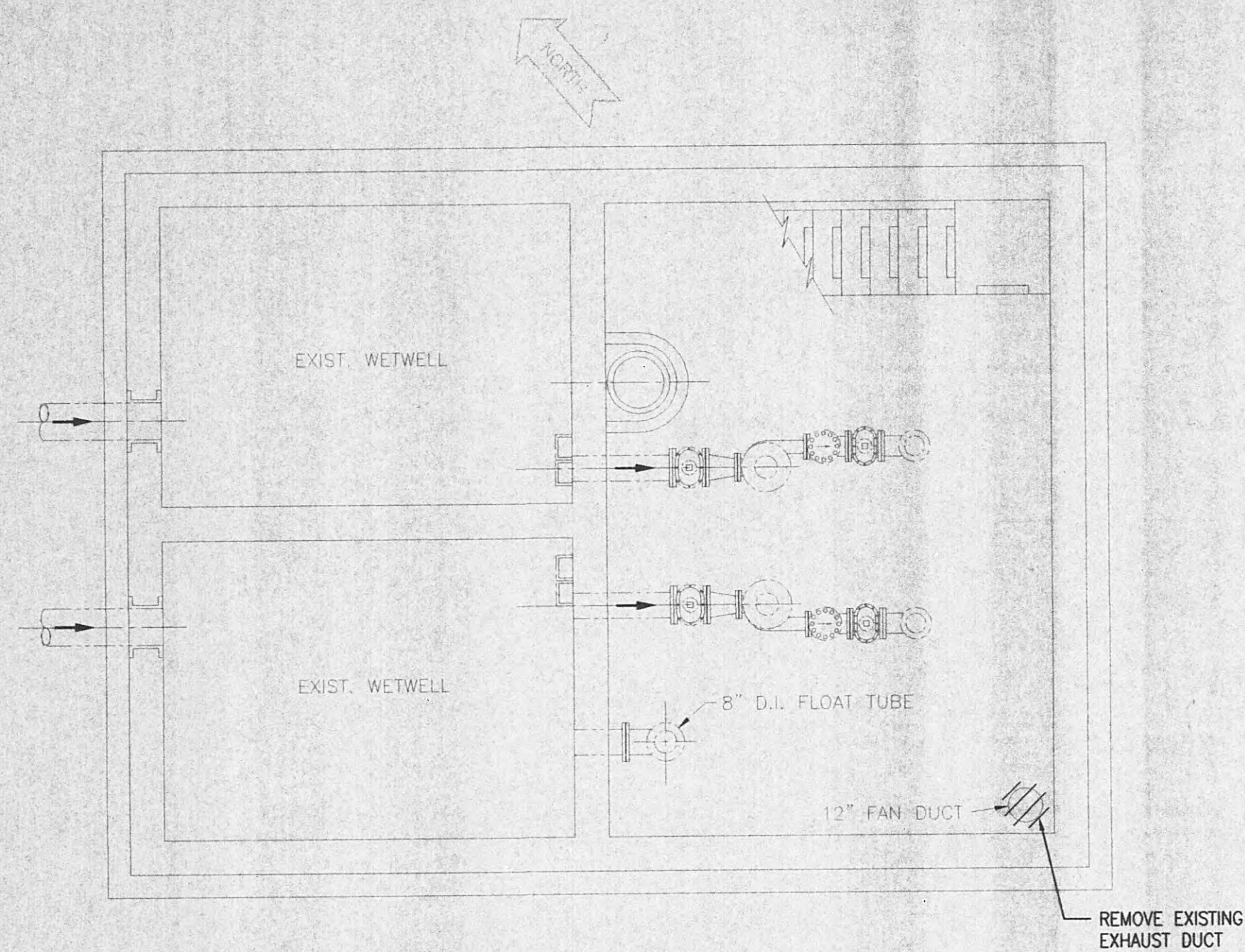
404 BNA Drive, Suite 201 NASHVILLE, TN 37217
PH. (615)366-1600 FAX (615)366-0406
LEXINGTON LOUISVILLE NASHVILLE KNOXVILLE
INDIANAPOLIS FORT MITCHELL ARLINGTON



Accepted By: Charles B. Elrod
Title: MANAGER
For: HARRIMAN UTILITY BOARD
Date: March 30, 2005

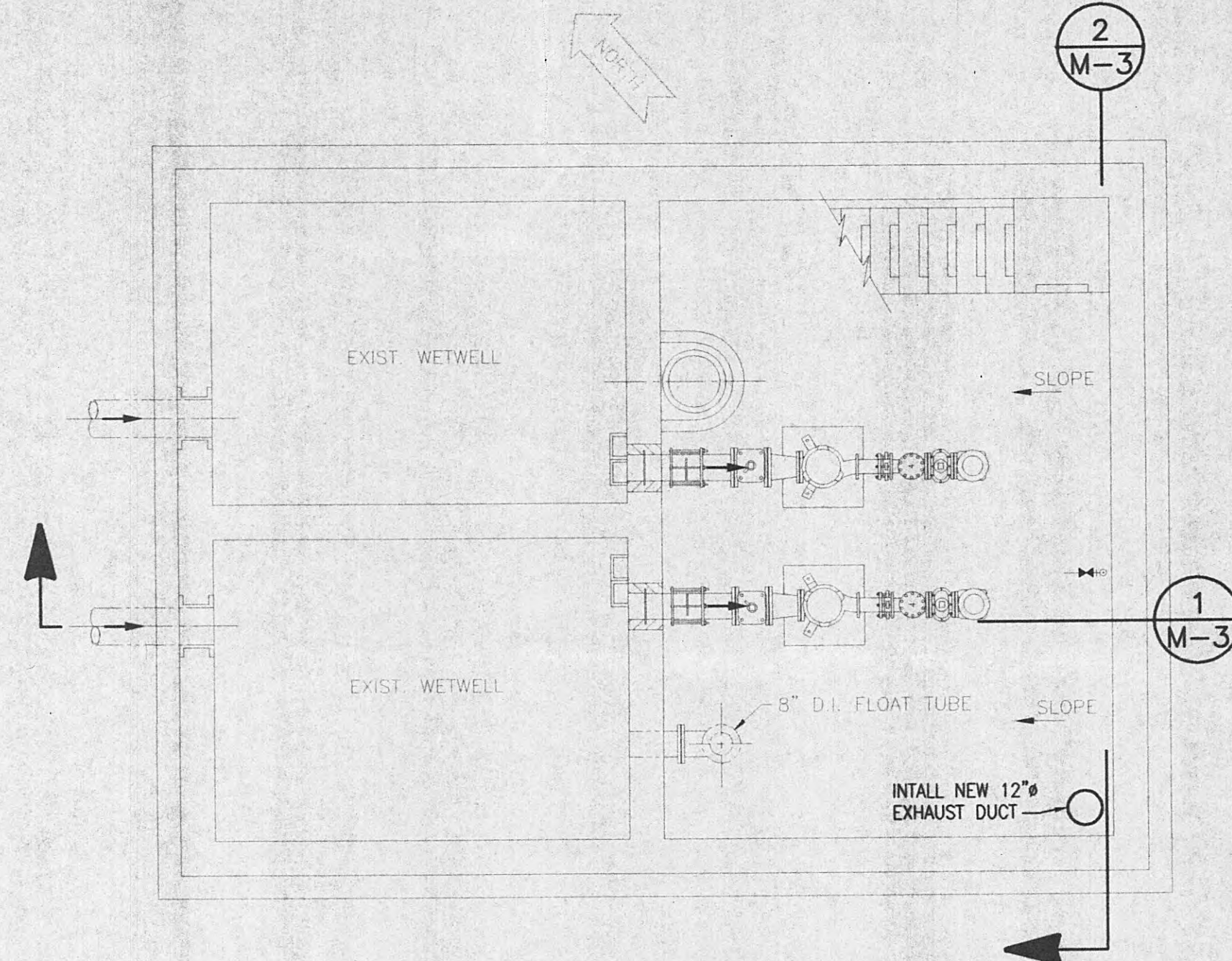
GRWED PROJ. NO. 7716-01

SET NO.



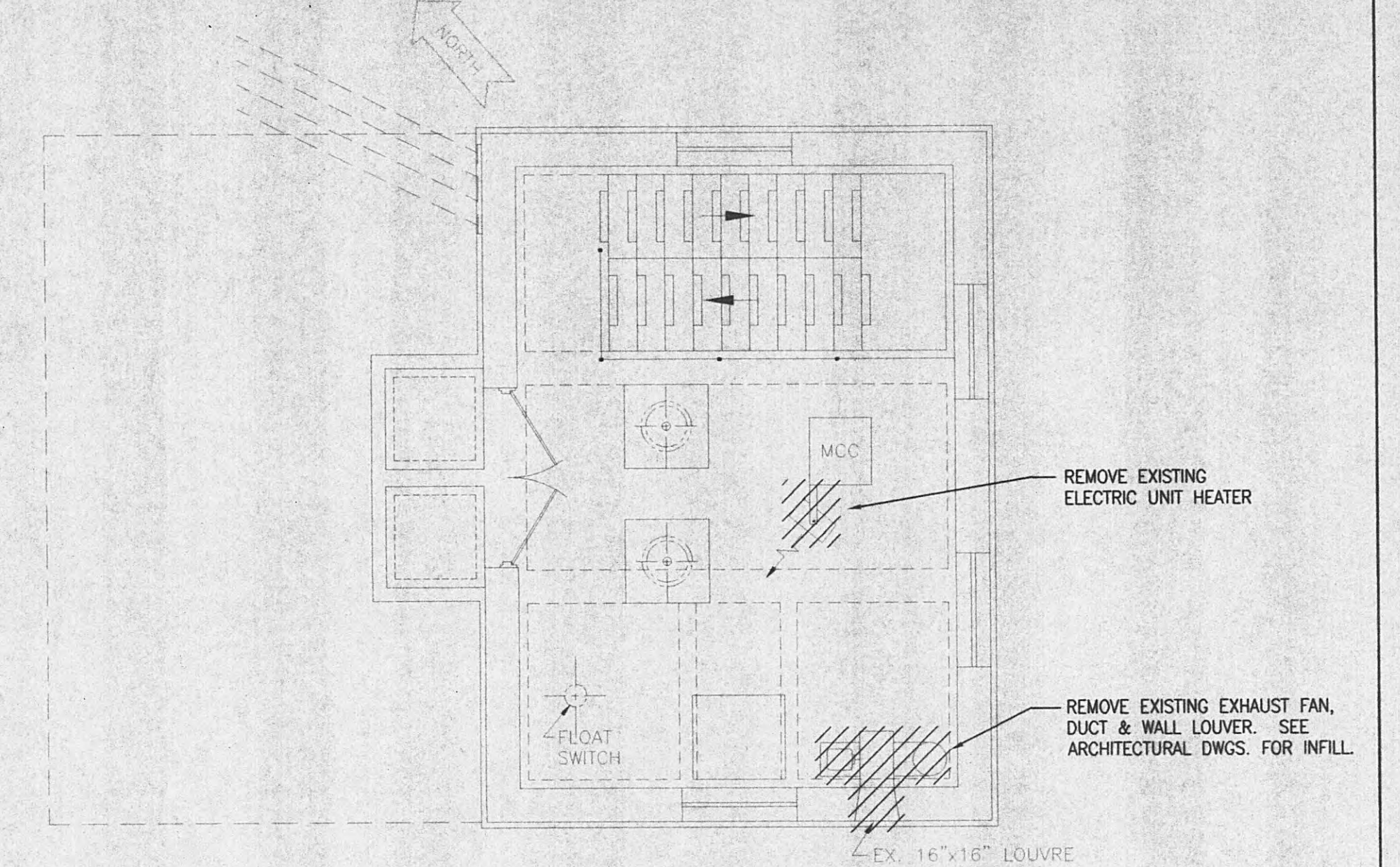
DEMOLITION FLOOR PLAN
- PUMP LEVEL

SCALE: 1/4" = 1'-0"



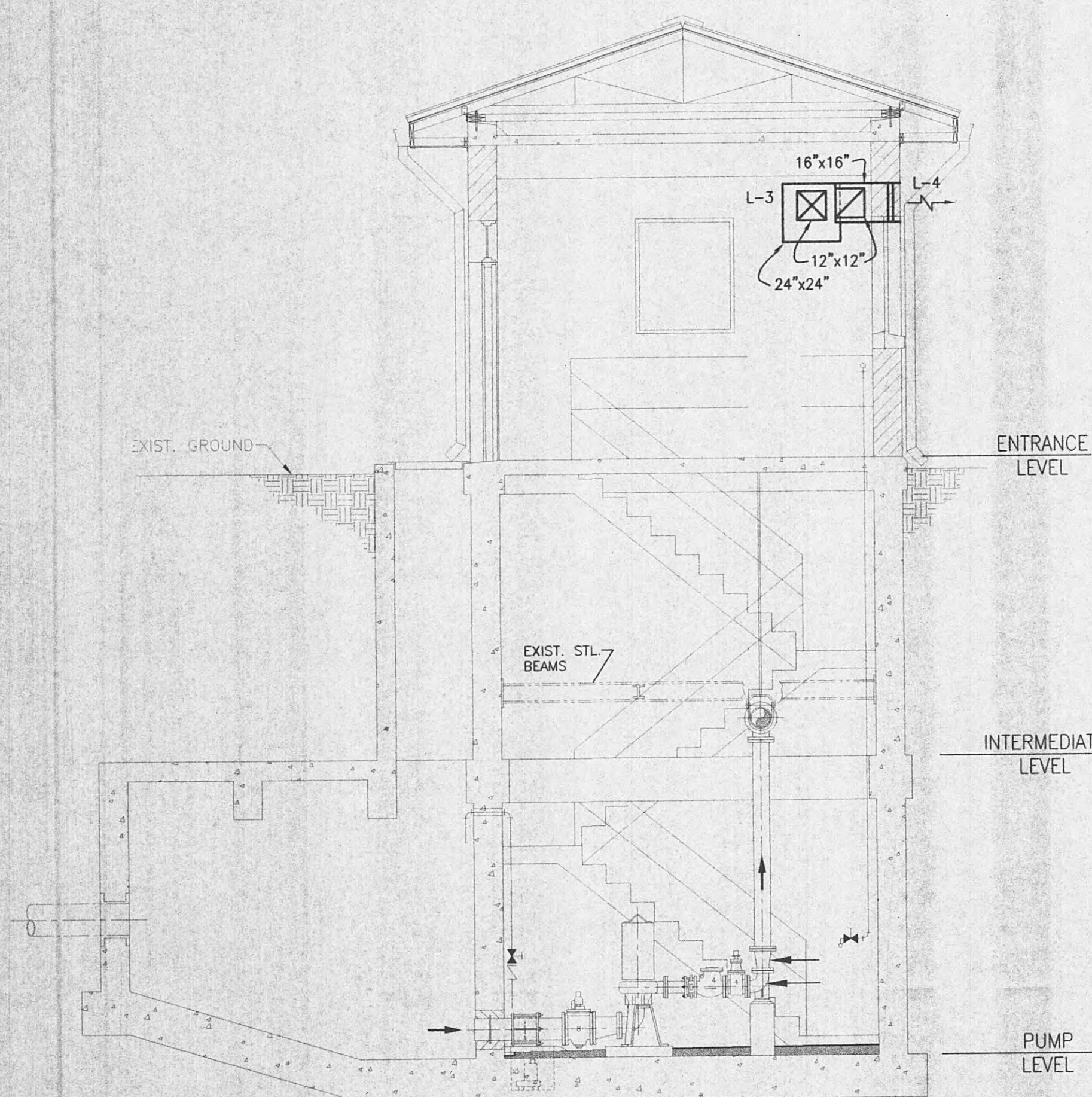
NEW WORK FLOOR PLAN
- PUMP LEVEL

SCALE: 1/4" = 1'-0"



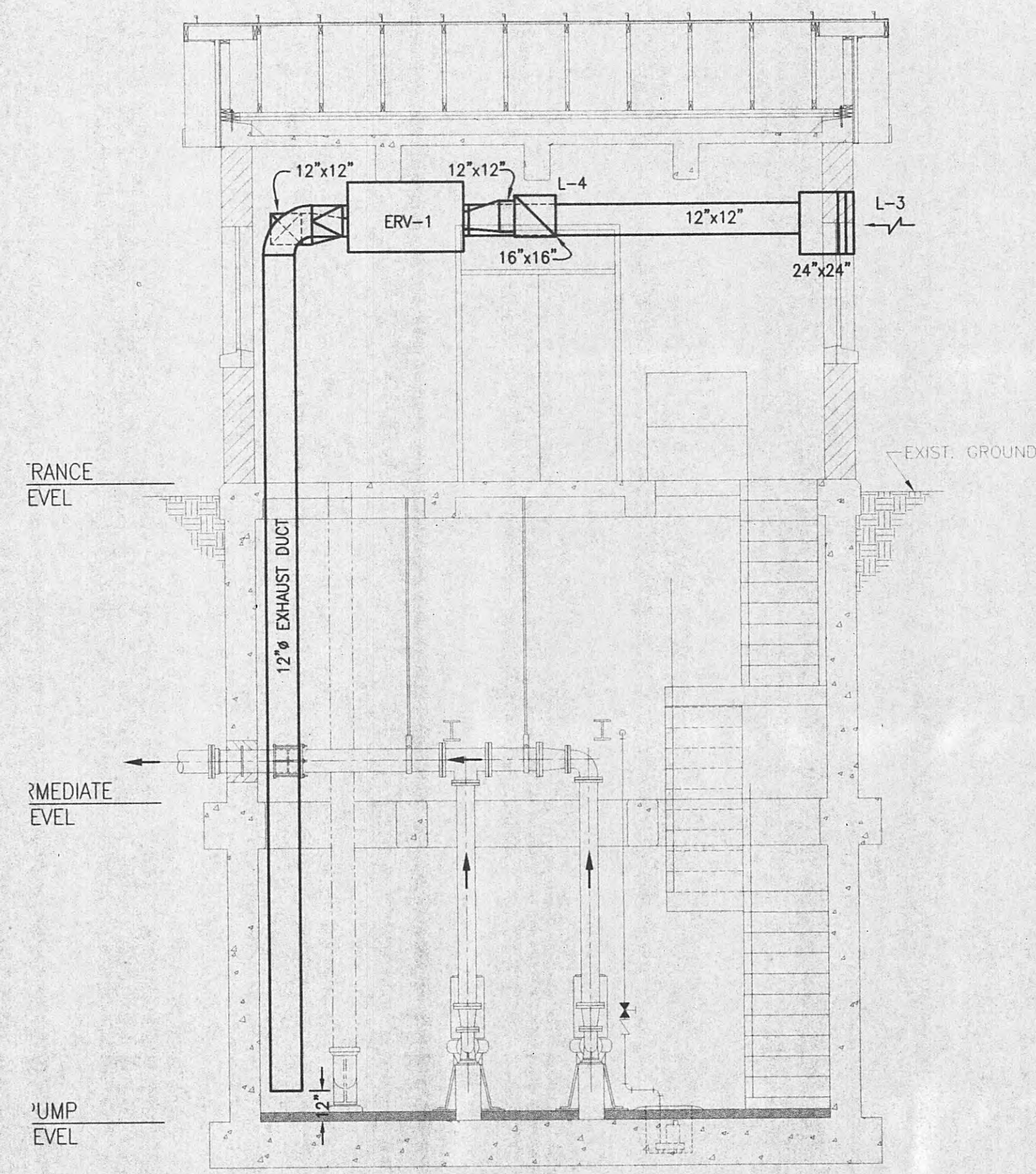
DEMOLITION FLOOR PLAN
- ENTRANCE LEVEL

SCALE: 1/4" = 1'-0"



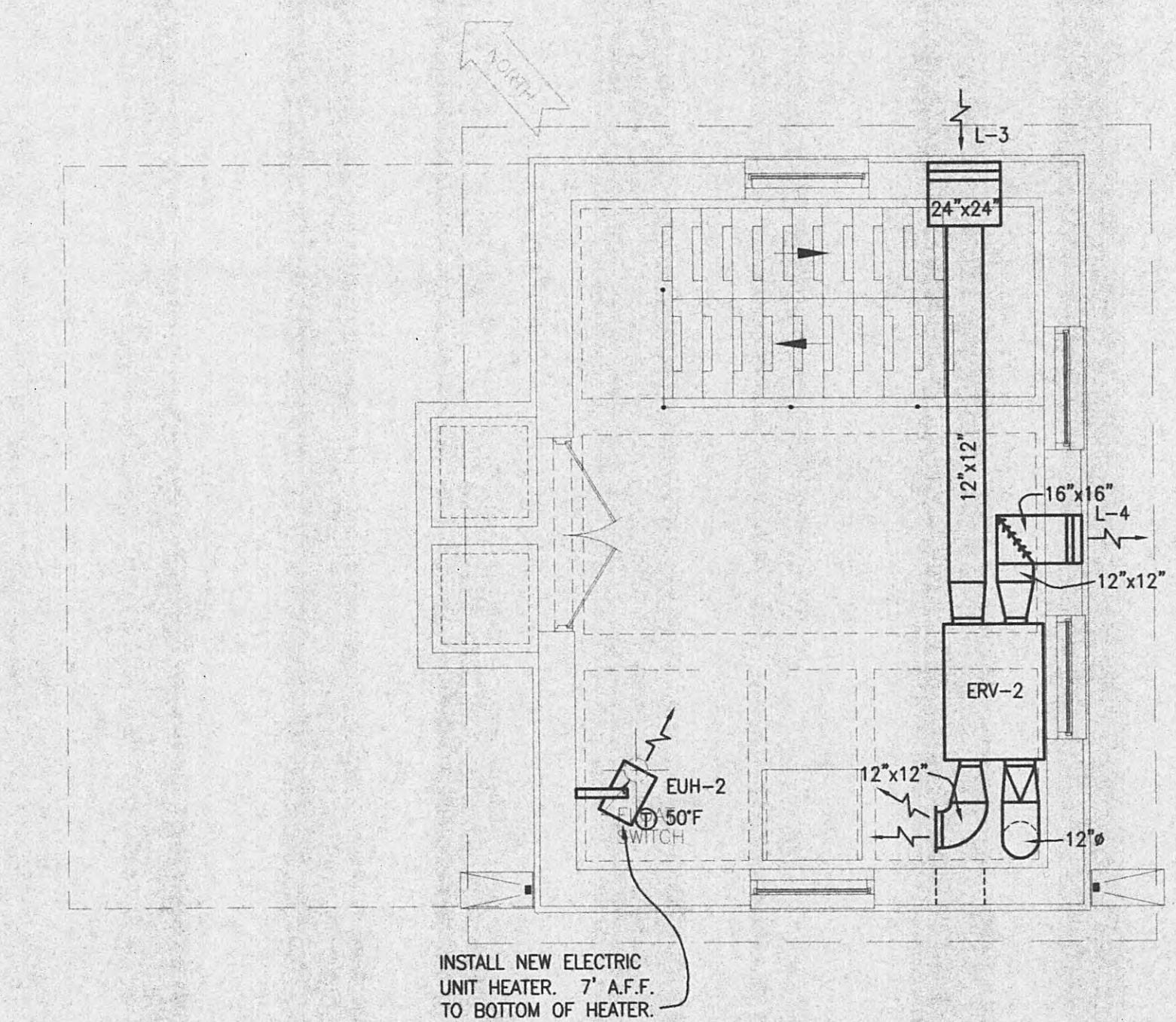
NEW WORK - SECTION 1

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NEW WORK - SECTION 2

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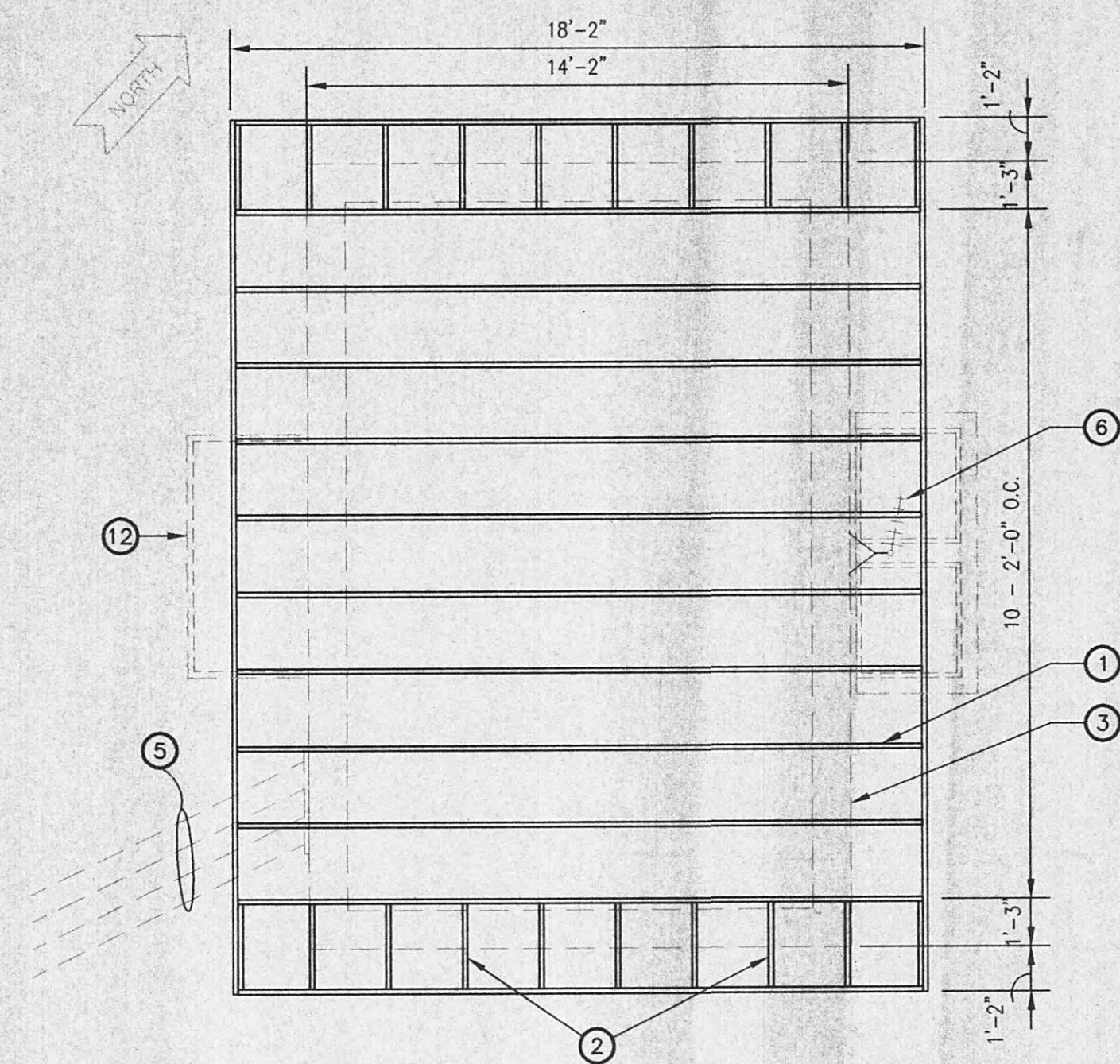
NEW WORK FLOOR PLAN
- ENTRANCE LEVEL

SCALE: 1/4" = 1'-0"

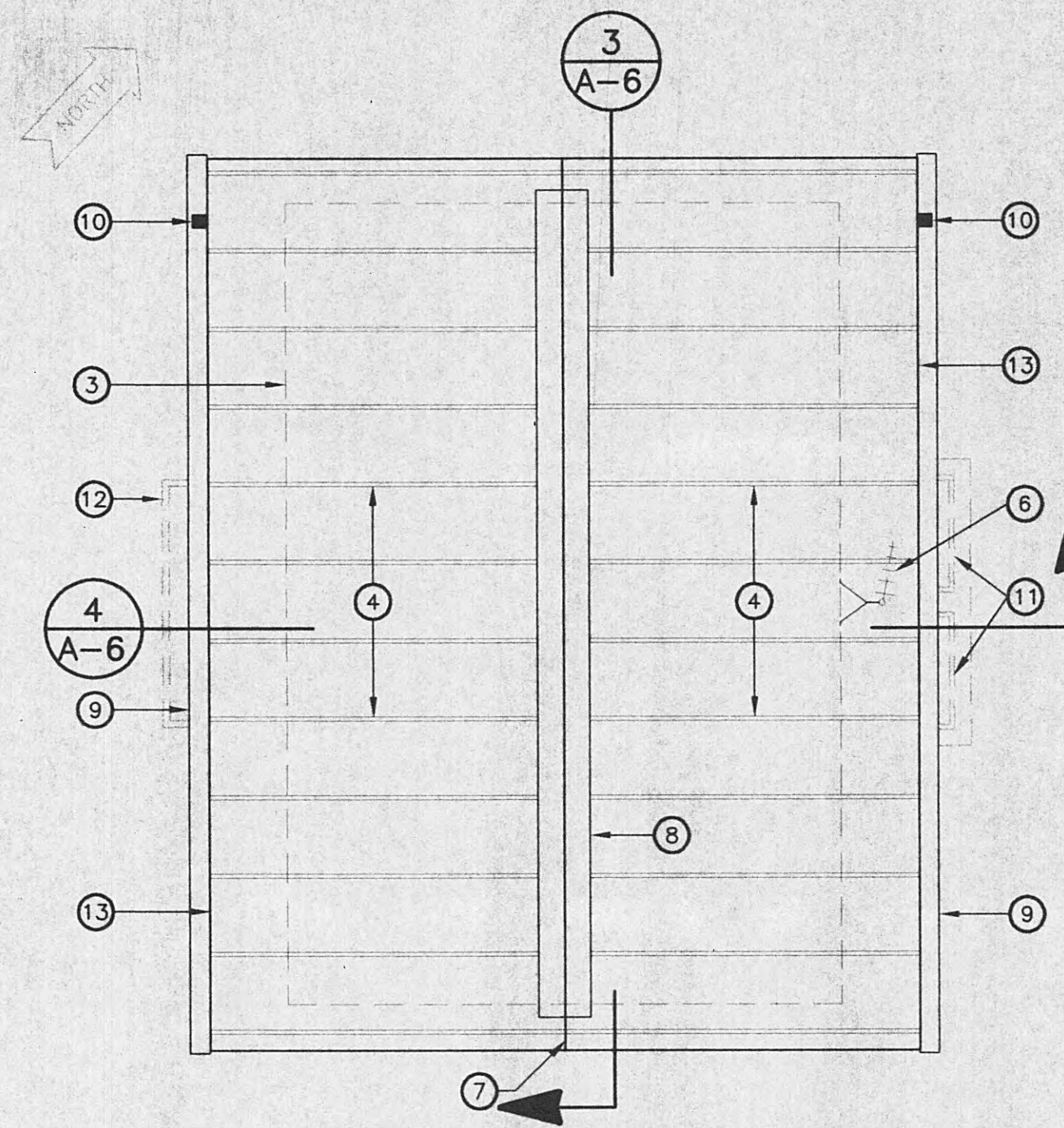
REVISIONS			
NO.	DESCRIPTION	DATE	BY



GRW PROJECT NO. 7716-01		CONTRACT S05-01	
HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE WALNUT HILL PUMP STATION MECHANICAL PLANS & SECTIONS			
 GRW Elrod Dunson, Inc. Engineers, Architects, Planners LEXINGTON LOUISVILLE INDIANAPOLIS NASHVILLE KNOXVILLE	DESIGNED: RGE	DATE: JANUARY, 2005	M-3
	DRAWN: JMG	SCALE: AS NOTED	
	REVIEWED: RGE	SHEET NO.	
	APPROVED: RGE		

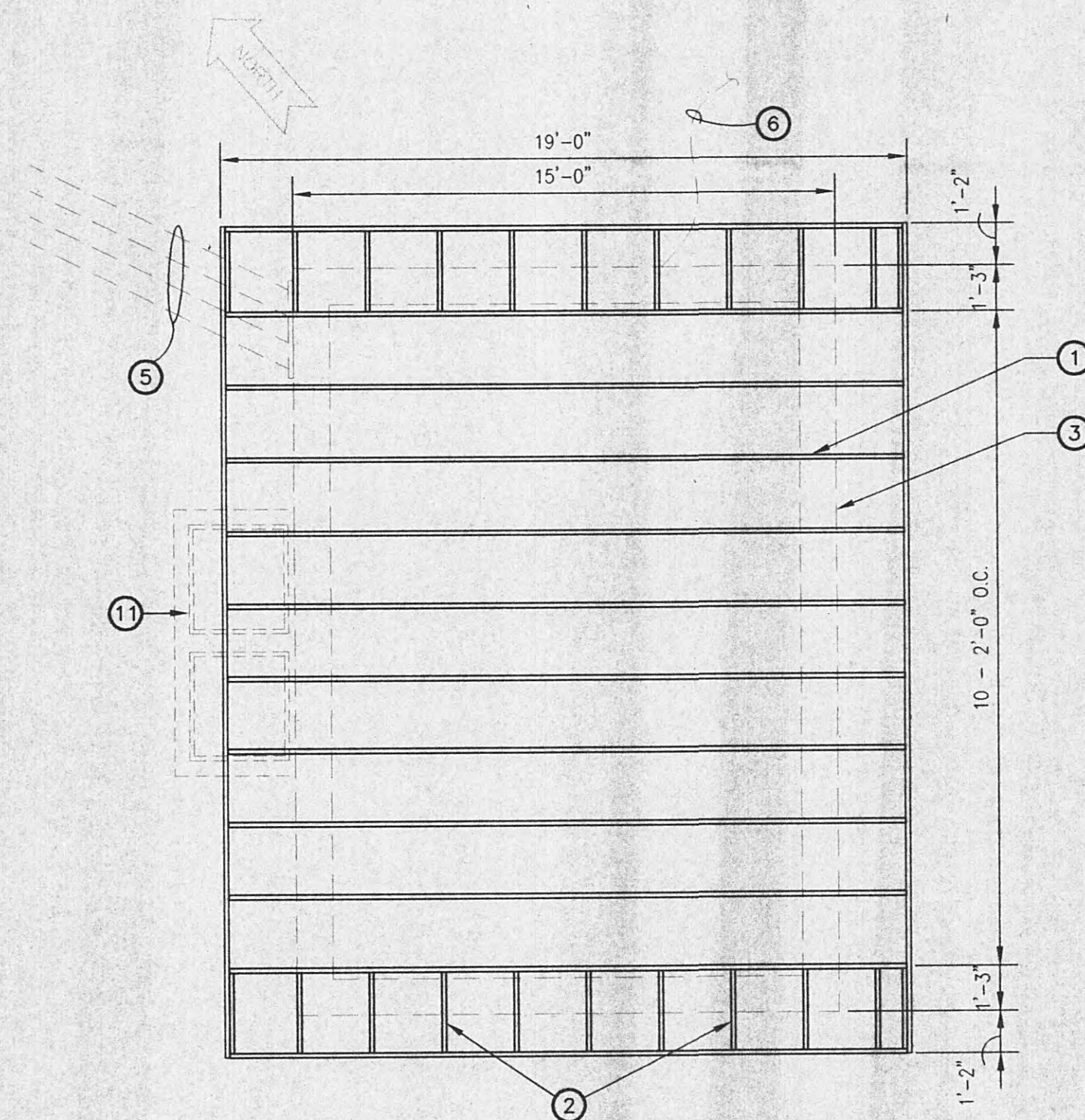


ROOF FRAMING PLAN
(CHERRY ST. PUMP STATION)
SCALE: 1/4" = 1'-0"

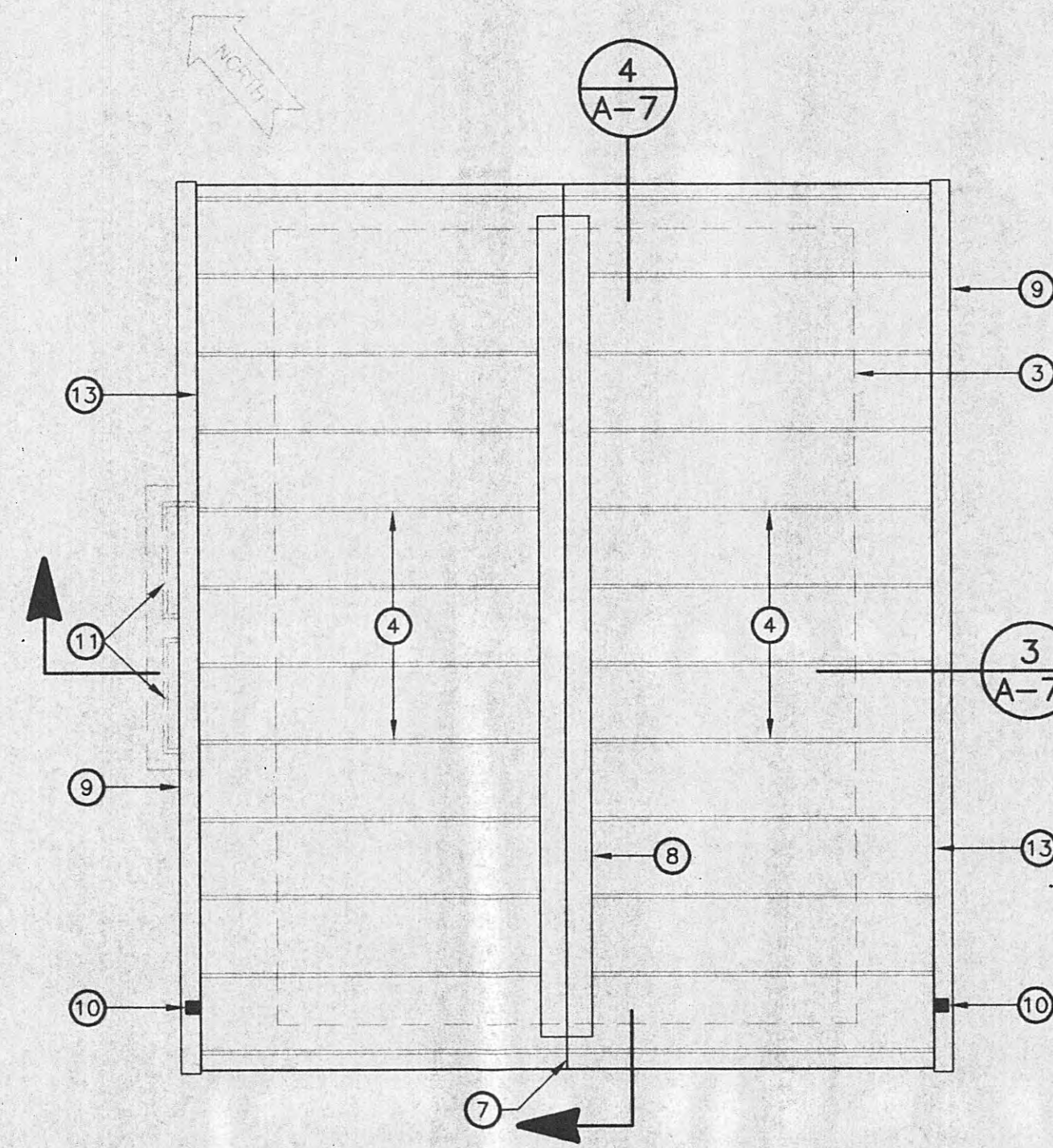


ROOF PLAN
(CHERRY ST. PUMP STATION)
SCALE: 1/4" = 1'-0"

- KEYNOTES:**
- ① PRE-ENGINEERED WOOD TRUSS @ 24" O.C.
 - ② GABLE END FRAMING -SEE DTL. 2/A-8
 - ③ LINE OF EXTERIOR WALL BELOW.
 - ④ NEW STANDING SEAM STEEL ROOF.
 - ⑤ SEE ELECTRICAL SHEETS FOR INFO ON ELECTRICAL LINES AND WEATHERHEAD REMOVED FROM SIDE OF BUILDING AND REROUTED.
 - ⑥ M.C. ANTENNA TO BE RELOCATED TO ALLOW FOR NEW ROOF SYSTEM -SEE ELECTRICAL SHEETS.
 - ⑦ NEW RIDGE LINE.
 - ⑧ NEW RIDGE VENT.
 - ⑨ NEW GUTTER.
 - ⑩ DROP FOR DOWNSPOUT.
 - ⑪ WETWELL ACCESS -BELOW
 - ⑫ EXISTING CONC. STOOP -BELOW
 - ⑬ NEW ROOF OVERHANG AT EAVE -SEE DTL. 1/A-8



ROOF FRAMING PLAN
(WALNUT HILL PUMP STATION)
SCALE: 1/4" = 1'-0"

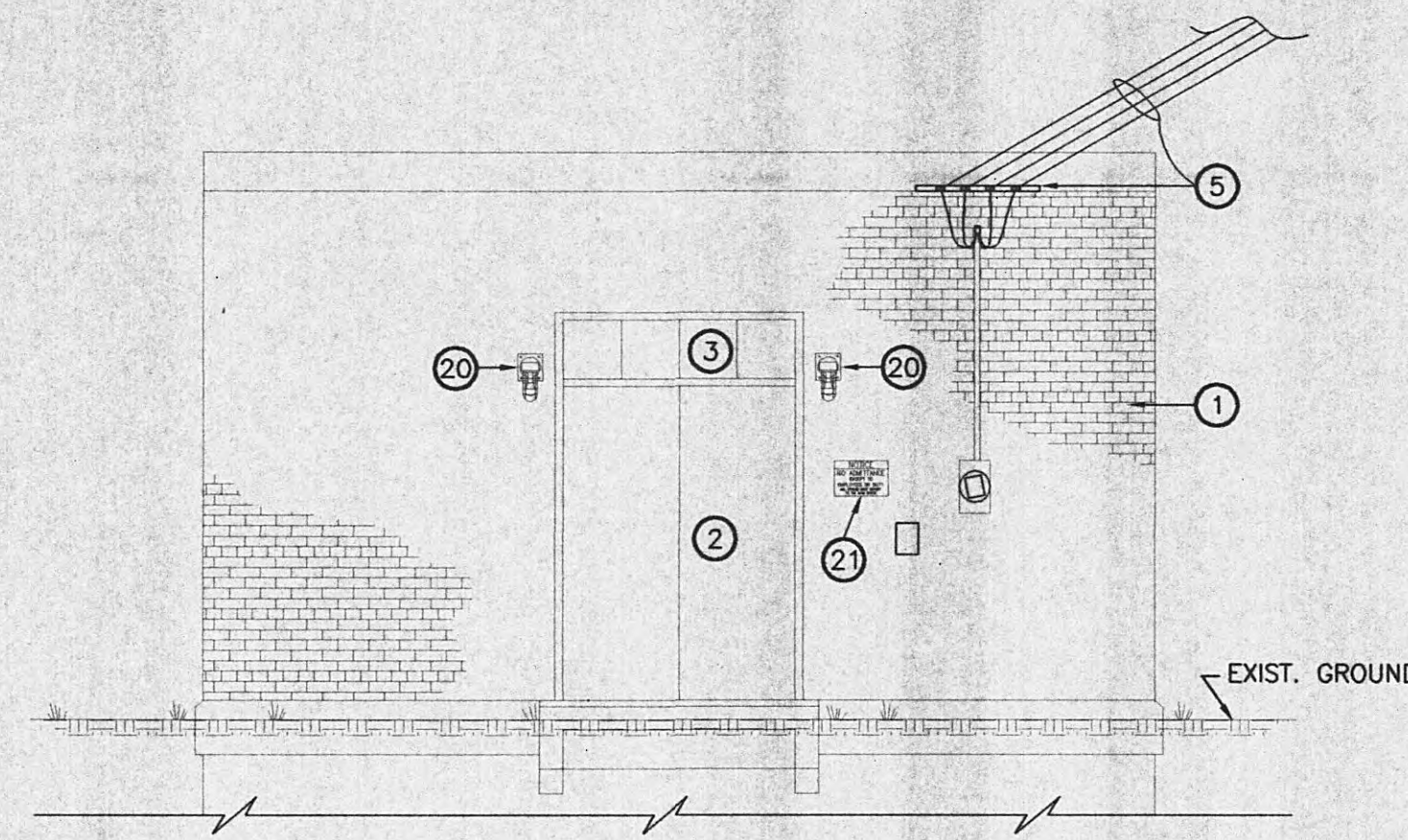


ROOF PLAN
(WALNUT HILL PUMP STATION)
SCALE: 1/4" = 1'-0"

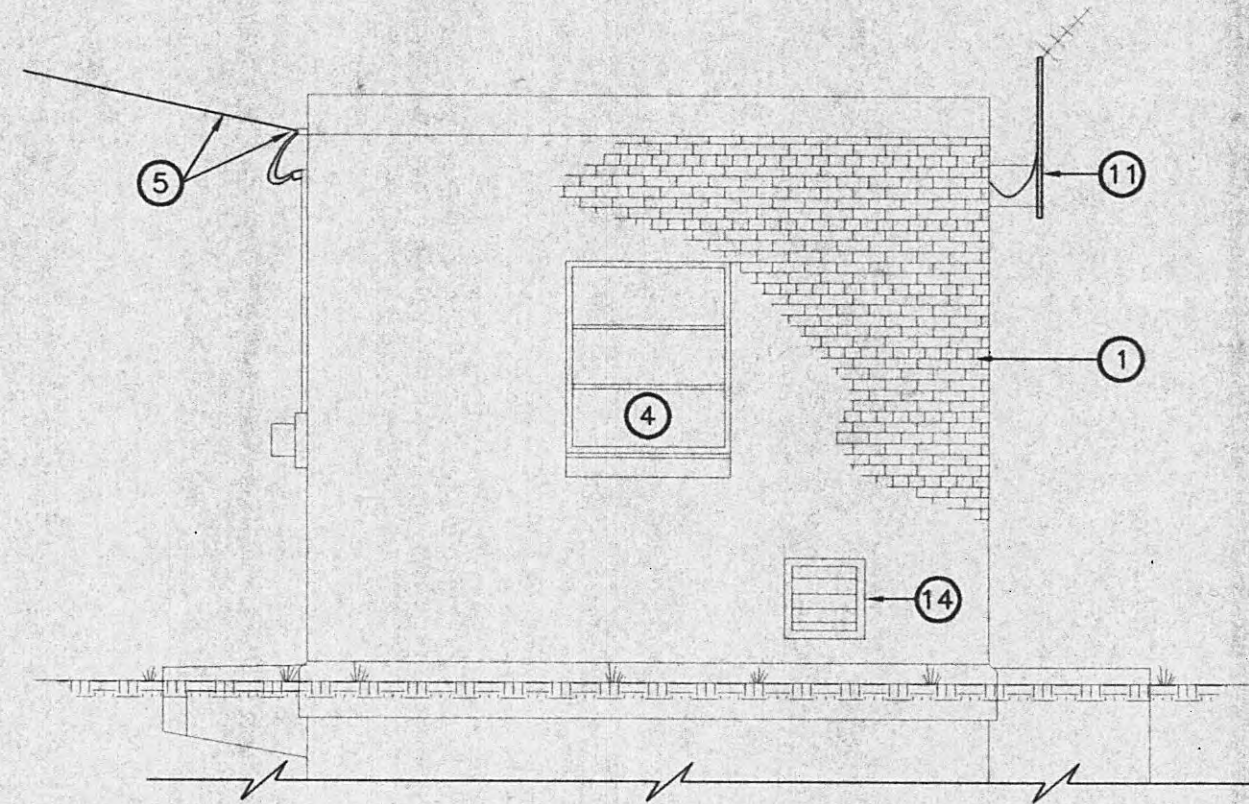
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NO.	DESCRIPTION	DATE	BY
	REVISIONS		



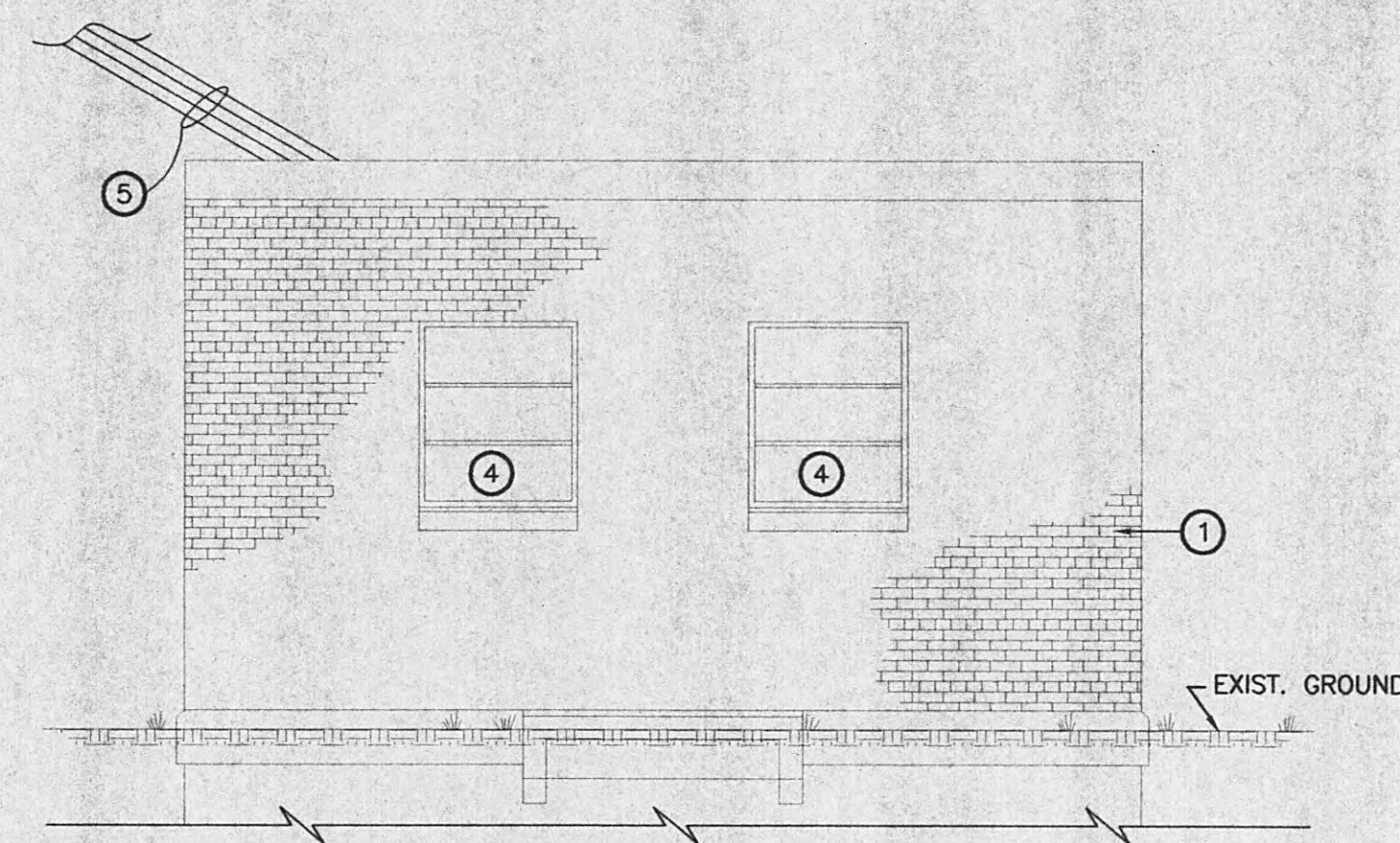
GRW PROJECT NO. 7716-01		CONTRACT S05-01	
HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE CHERRY ST. & WALNUT HILL PUMP STATION CHERRY ST. & WALNUT HILL ROOF PLANS			
 GRW Elrod Dunson, Inc. Engineers, Architects, Planners LEXINGTON LOUISVILLE INDIANAPOLIS NASHVILLE KNOXVILLE		DESIGNED: JCP	DATE: JANUARY, 2005
		DRAWN: STAFF	SCALE: AS NOTED
		REVIEWED: JCP	SHEET NO.
		APPROVED: JCP	A-3



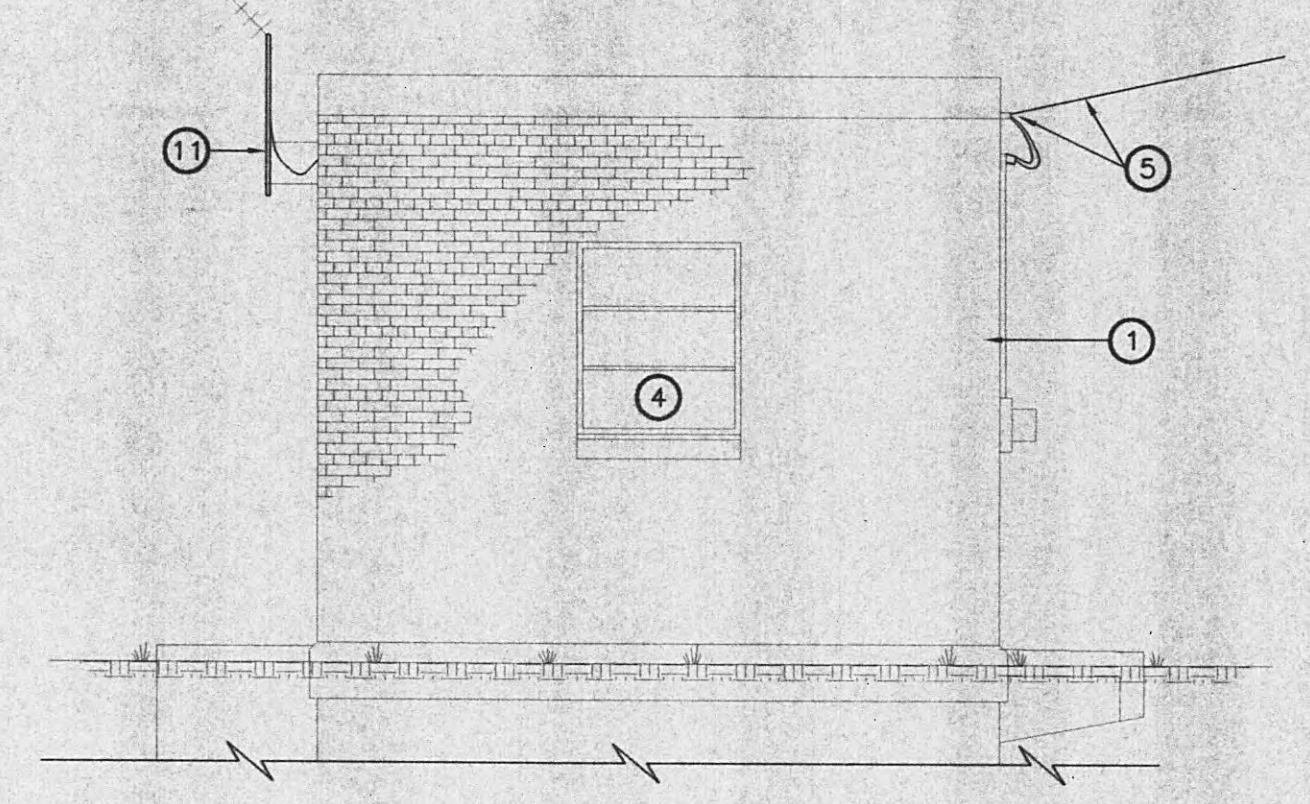
EXISTING SOUTH ELEVATION 1
SCALE: 1/4" = 1'-0"



EXISTING EAST ELEVATION 2
SCALE: 1/4" = 1'-0"



EXISTING NORTH ELEVATION 3
SCALE: 1/4" = 1'-0"



EXISTING WEST ELEVATION 4
SCALE: 1/4" = 1'-0"

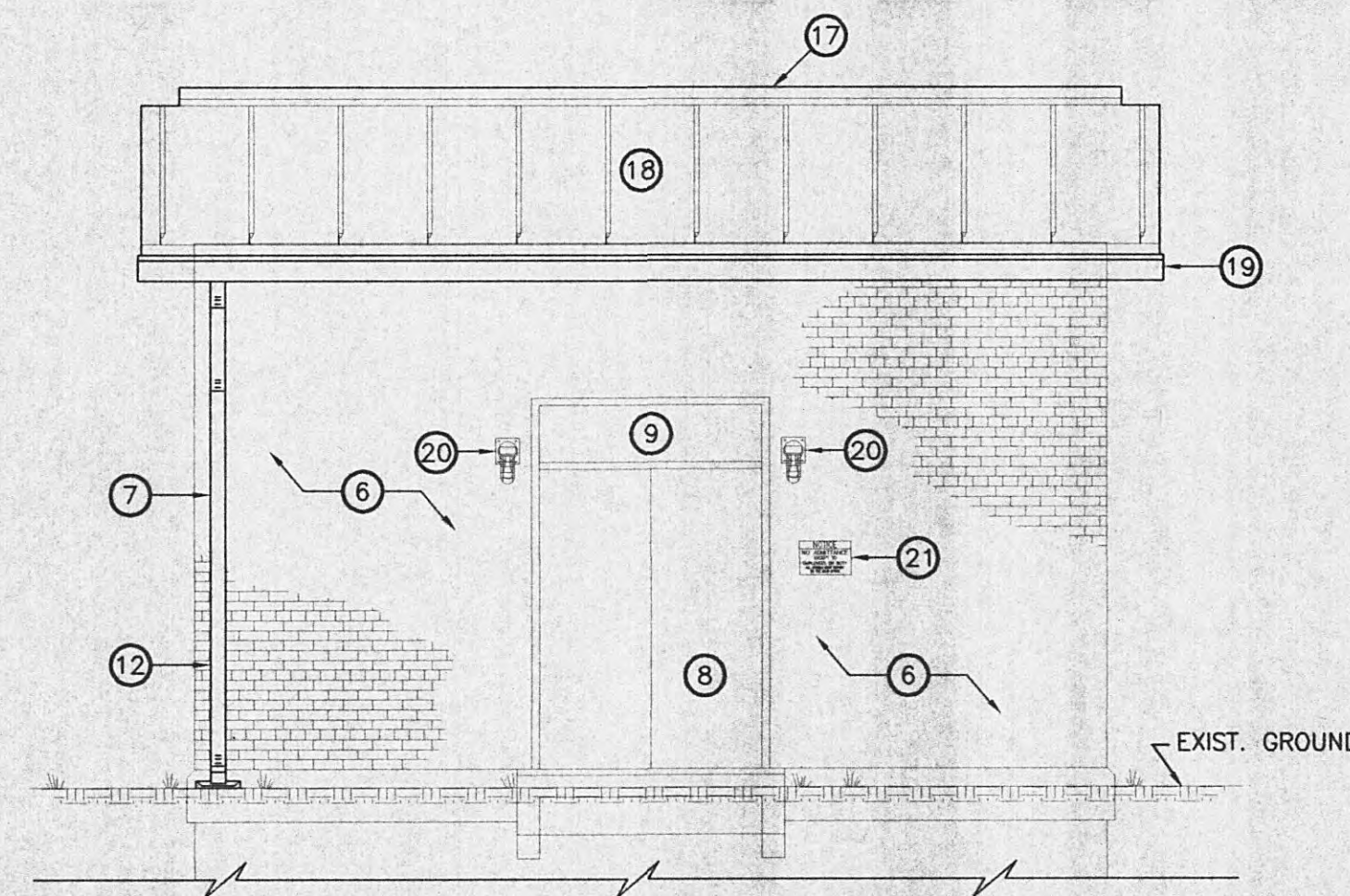
KEYNOTES:

- 1 EXISTING BRICK COMPOSITE WALL.
- 2 EXISTING DOOR AND FRAME TO BE REMOVED.
- 3 EXISTING TRANSOM ABOVE DOOR TO BE REMOVED.
- 4 EXISTING WINDOWS TO BE REMOVED.
- 5 EXISTING ELECTRICAL WEATHERHEAD AND LINES TO BE REMOVED FROM EXTERIOR FACE OF BUILDING AND LINES TO BE REROUTED (SEE ELECTRICAL SHEETS FOR INFO).
- 6 EXISTING EXTERIOR WALLS TO BE PRESSURE WASHED AND SEALER APPLIED.
- 7 ALL CRACKS IN MORTAR JOINTS AND HOLES WHERE EQUIPMENT OR PIPES HAVE BEEN REMOVED TO BE REPOINTED.
- 8 PROVIDE NEW OUT SWINGING DOORS WITH NEW FRAME. VERIFY MASONRY OPENING. (PAINT) -SEE DETAIL 4/A-8.
- 9 REPLACE TRANSOM WITH HOLLOW METAL PANEL -PAINT TRANSOM, AND FLASHING TO MATCH DOOR (FIELD VERIFY SIZE AND CONFIGURATION) -SEE DETAIL 4/A-8.
- 10 INSTALL NEW WINDOWS (FIELD VERIFY SIZE AND CONFIGURATION) -SEE DETAIL 3/A-8.
- 11 M.C. ANTENNA TO BE RELOCATED TO ALLOW FOR NEW ROOF SYSTEM -SEE ELECTRICAL SHEETS.

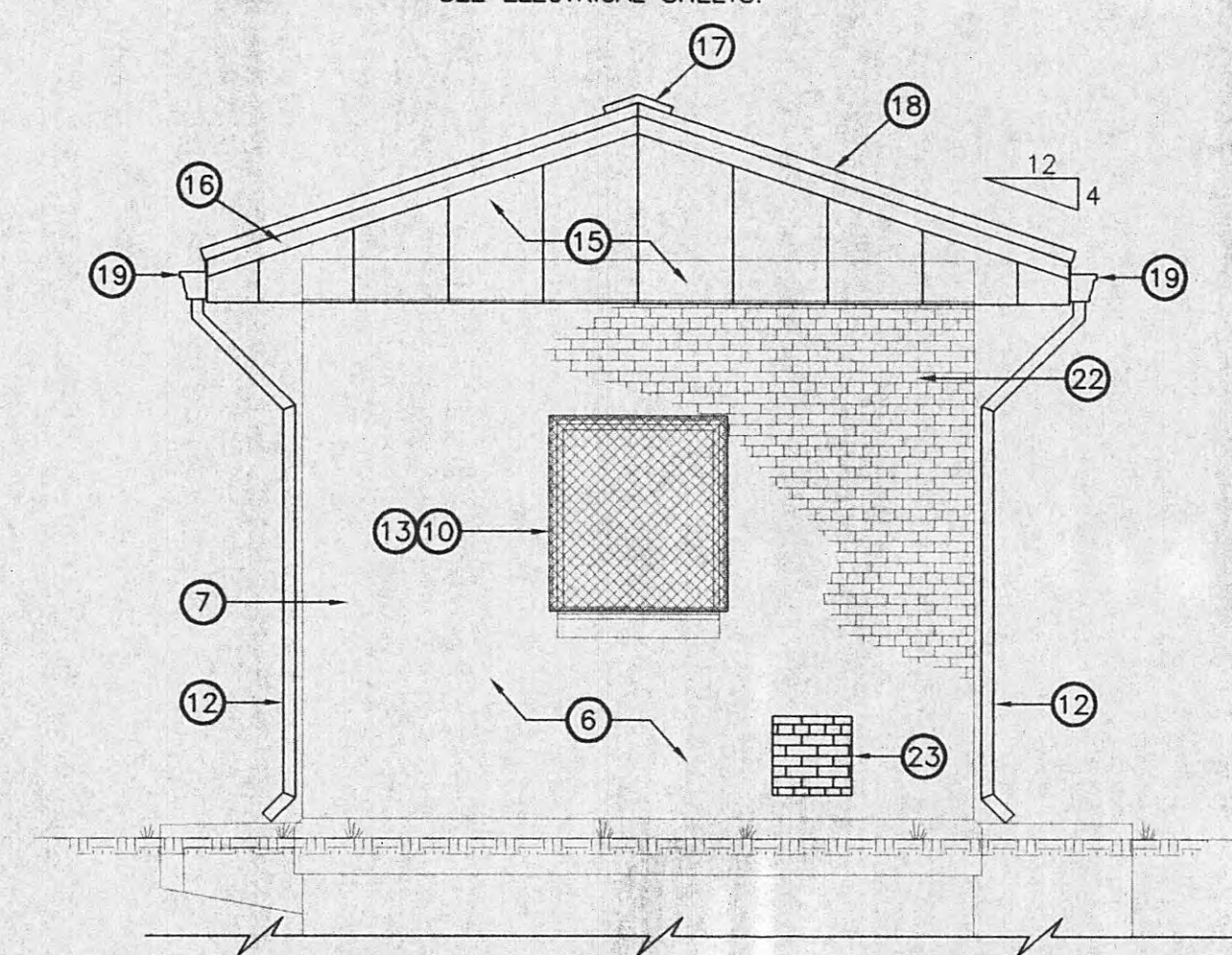
- 12 NEW 4"x4" DOWNSPOUT AND SPLASHBLOCK.
- 13 COVER ALL WINDOWS WITH WINDOW GUARD -SEE DTL. 5/A-8
- 14 LOUVER TO BE REMOVED SEE "M" SHEETS FOR INFO
- 15 MTL. GABLE END PANELS W/1 1/4" DEEP CORRUGATIONS.
- 16 ALUMINUM OVERHANG TRIM
- 17 CONTINUOUS VENTED RIDGE VENT.
- 18 NEW STANDING SEAM MTL. ROOFING
- 19 NEW 6" MTL. GUTTER
- 20 EXTERIOR LIGHTING -SEE ELECTRICAL SHEETS FOR INFO
- 21 SIGNAGE TO REMAIN
- 22 MINOR TUCK POINTING REQUIRED
- 23 NEW BRICK INFILL AT REMOVED LOUVER LOCATION -MATCH EXISTING METHODS AND MATERIALS.
- 24 NEW LOUVER -SEE MECHANICAL SHEETS FOR INFO

EXTERIOR COLOR SCHEDULE:

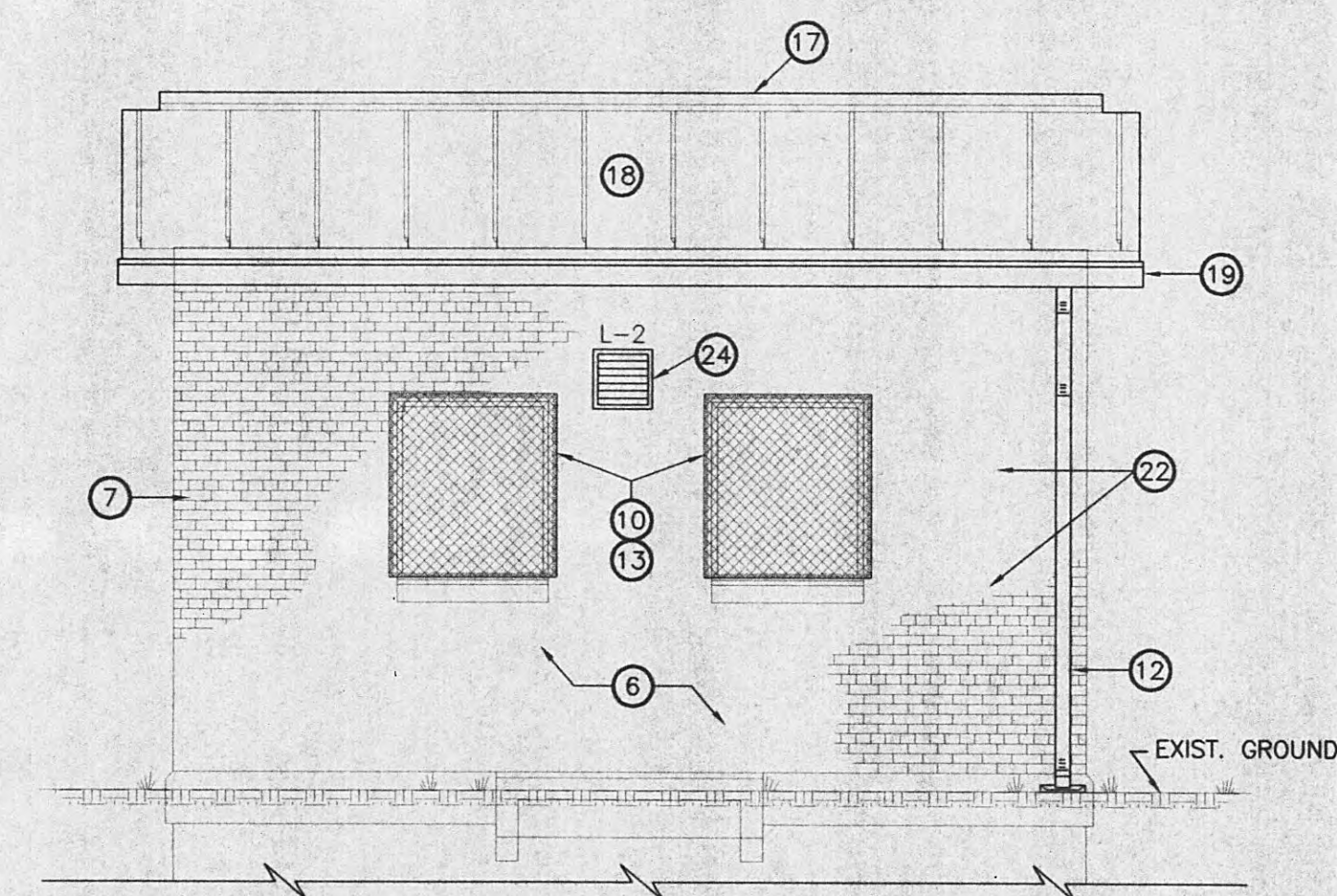
- ROOF/RIDGE VENT - FOREST GREEN
SOFFIT/TRIM - WHITE
GUTTER/DOWNSPOUT - WHITE
METAL GABLE - WHITE
DOOR/FRAME - GRAY
WINDOWS - ALUMINUM MILL FINISH
WINDOW GUARDS - GRAY
LOUVER - ALUMINUM MILL FINISH
BRICK - CLEAR SEALER



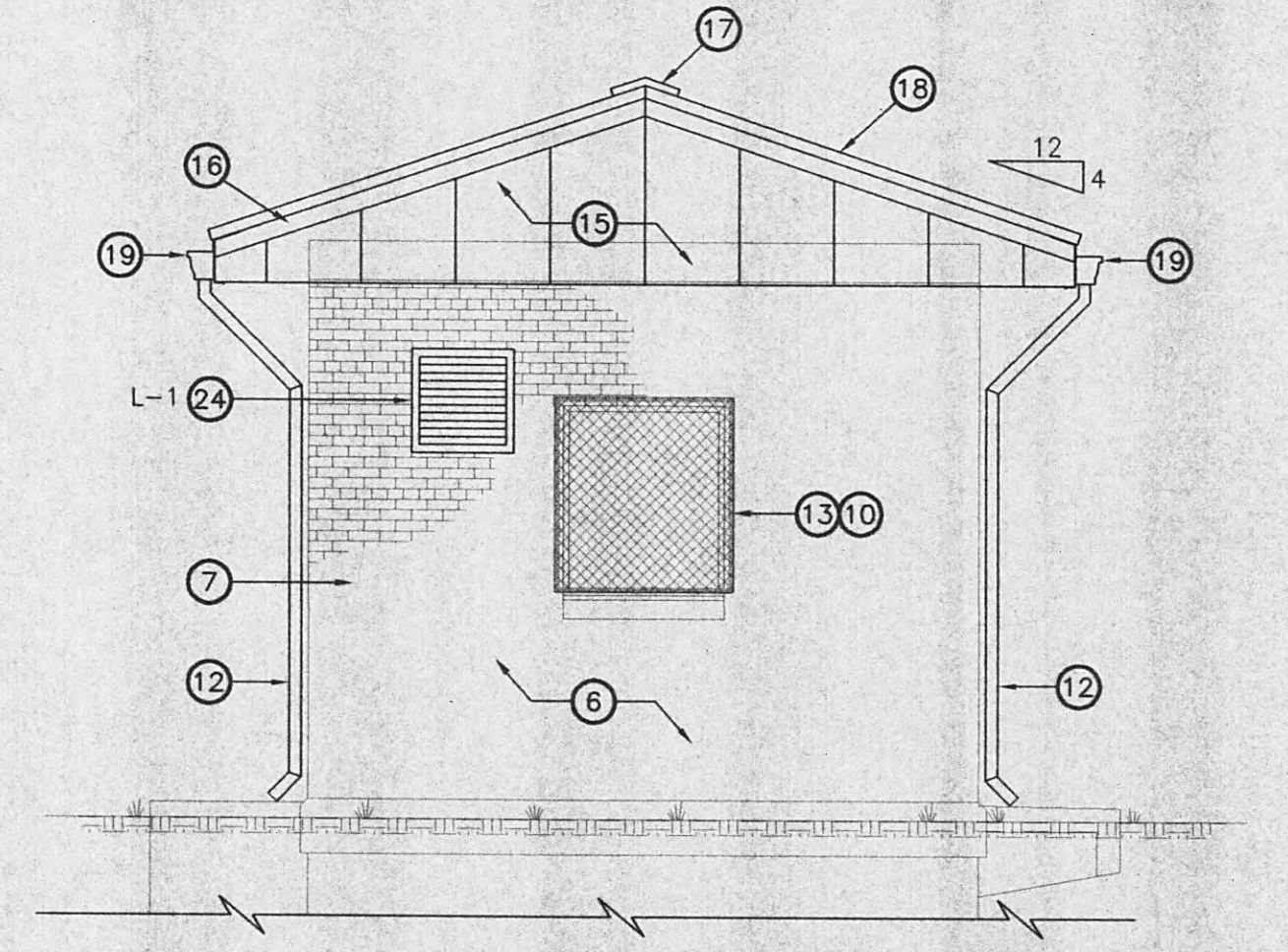
NEW WORK SOUTH ELEVATION 5
SCALE: 1/4" = 1'-0"



NEW WORK EAST ELEVATION 6
SCALE: 1/4" = 1'-0"



NEW WORK NORTH ELEVATION 7
SCALE: 1/4" = 1'-0"



NEW WORK WEST ELEVATION 8
SCALE: 1/4" = 1'-0"

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NO.	DESCRIPTION	DATE	BY
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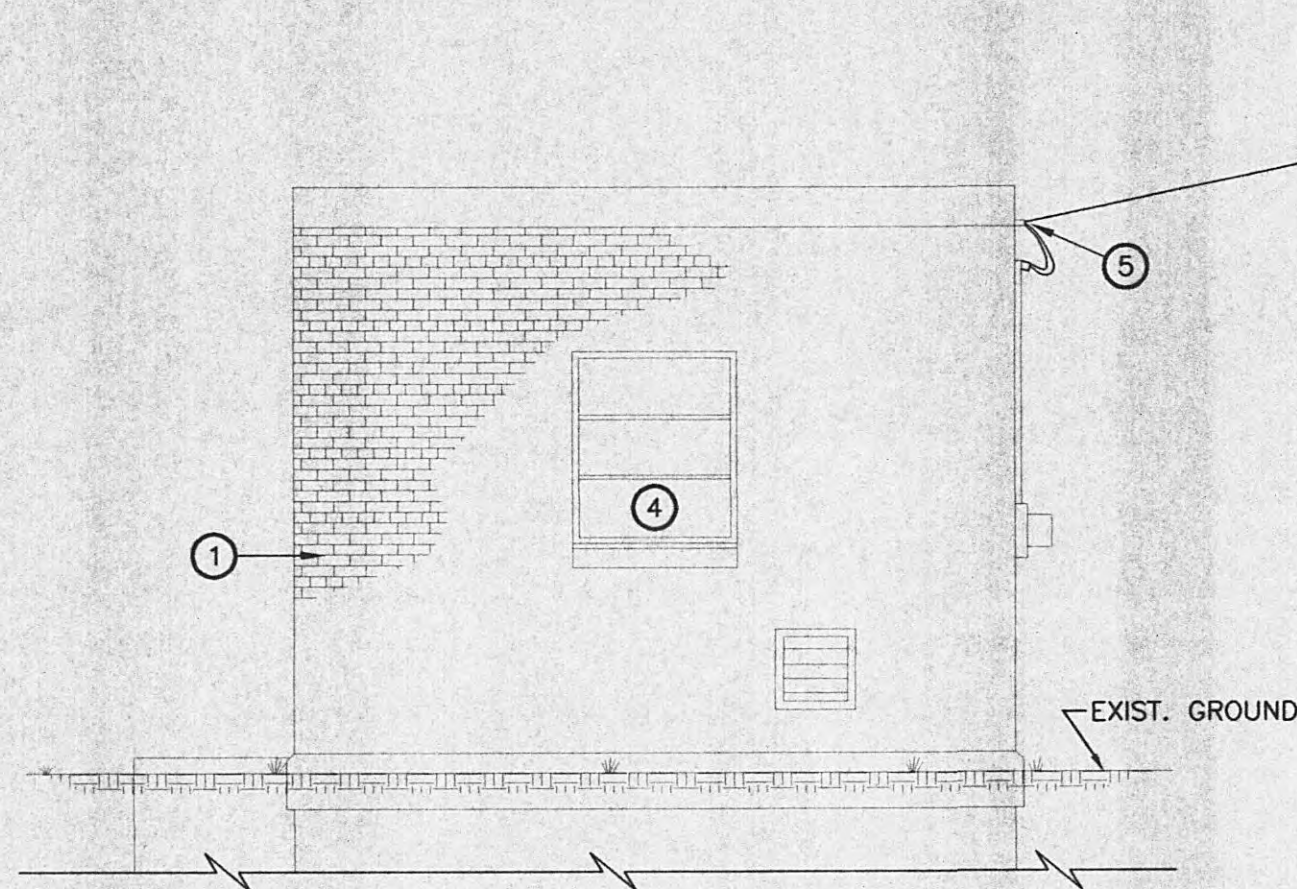
GRW PROJECT NO. 7716-01 CONTRACT S05-01

HARRIMAN UTILITY BOARD
HARRIMAN, TENNESSEE
CHERRY ST. PUMP STATION
DEMO & NEW WORK ELEVATIONS

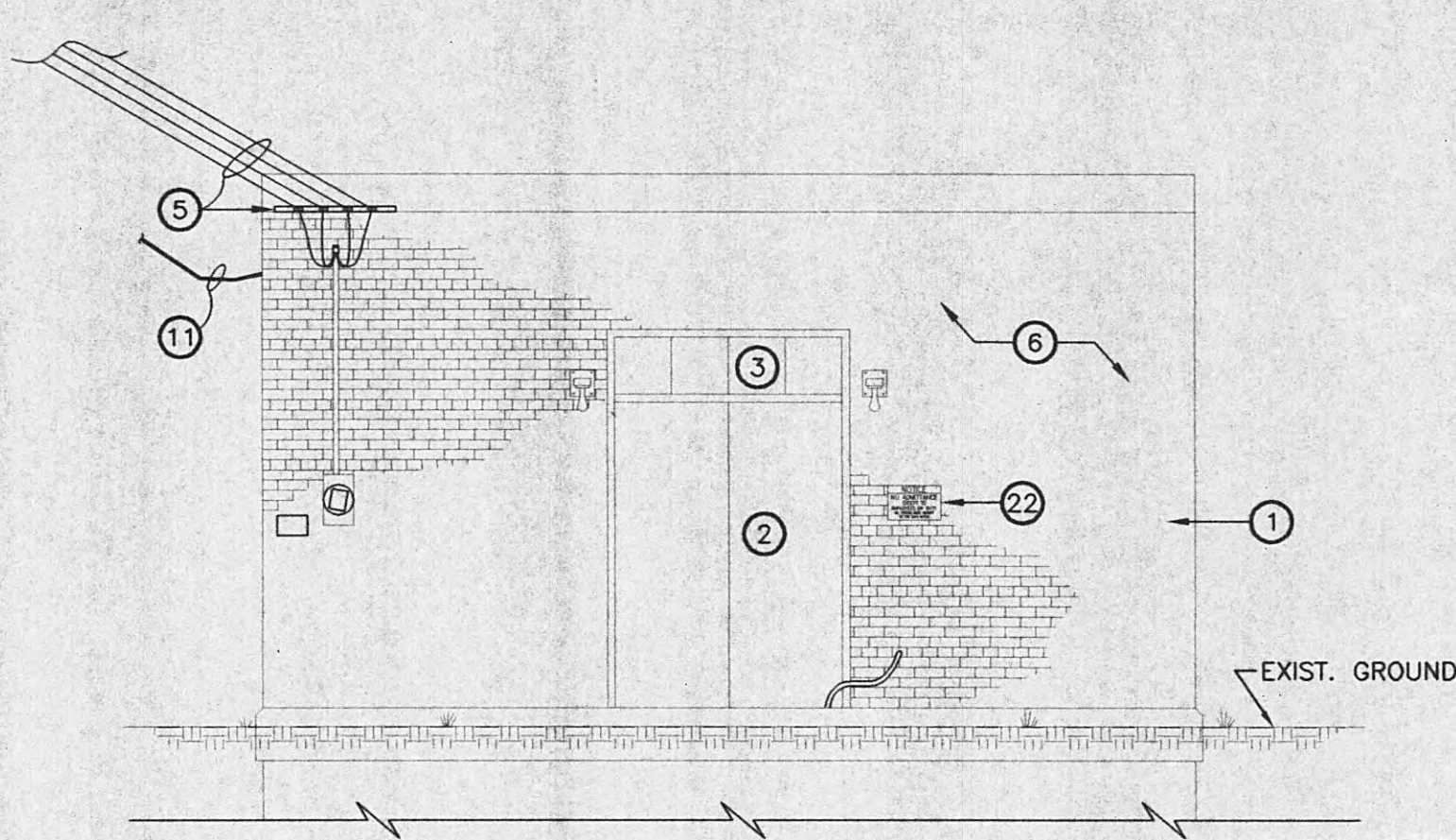
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DRAWN: STAFF SCALE: AS NOTED
REVIEWED: JCP SHEET NO.
APPROVED: JCP

GRW Elrod Dunson, Inc.
Engineers, Architects, Planners
LEXINGTON LOUISVILLE INDIANAPOLIS
NASHVILLE KNOXVILLE

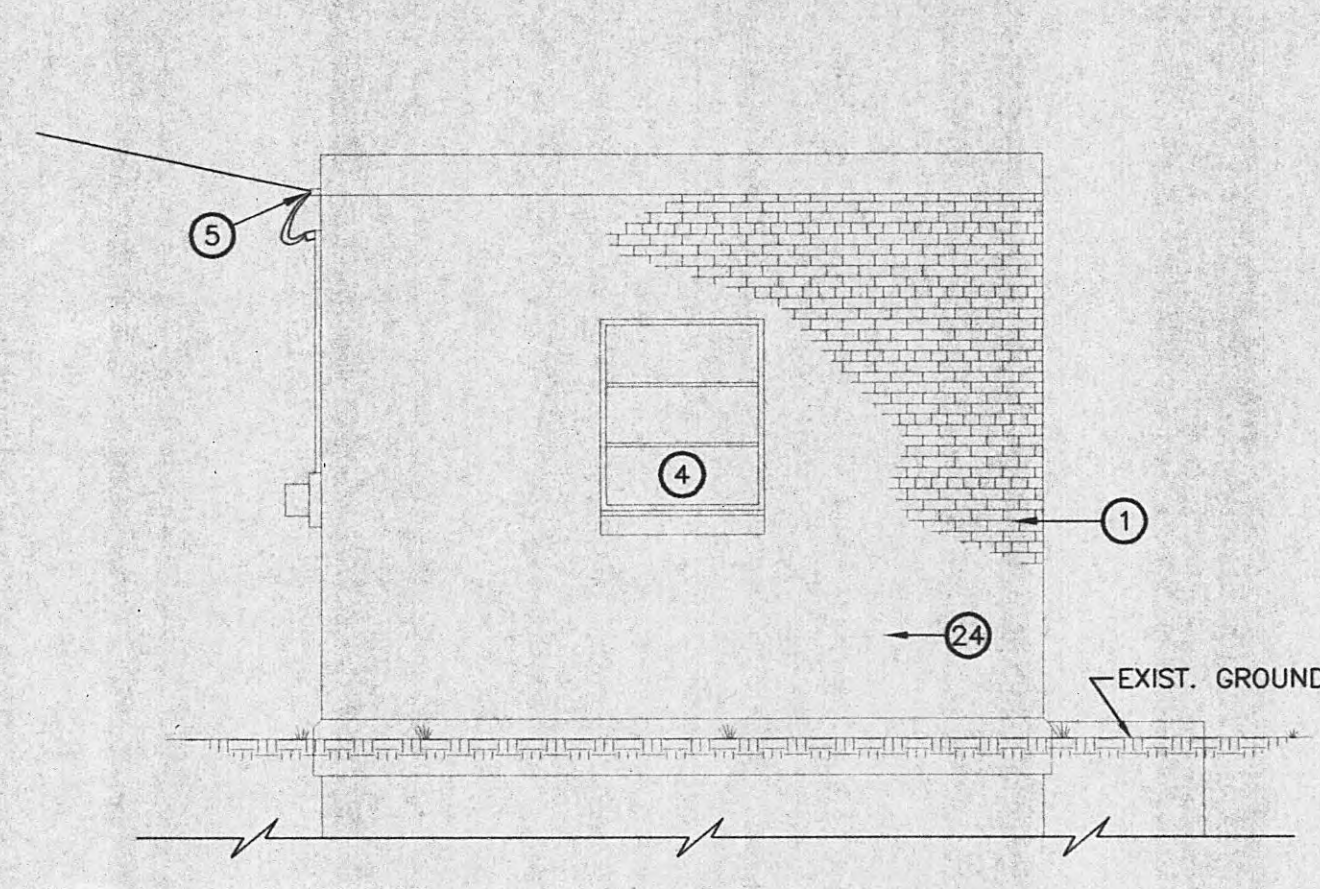
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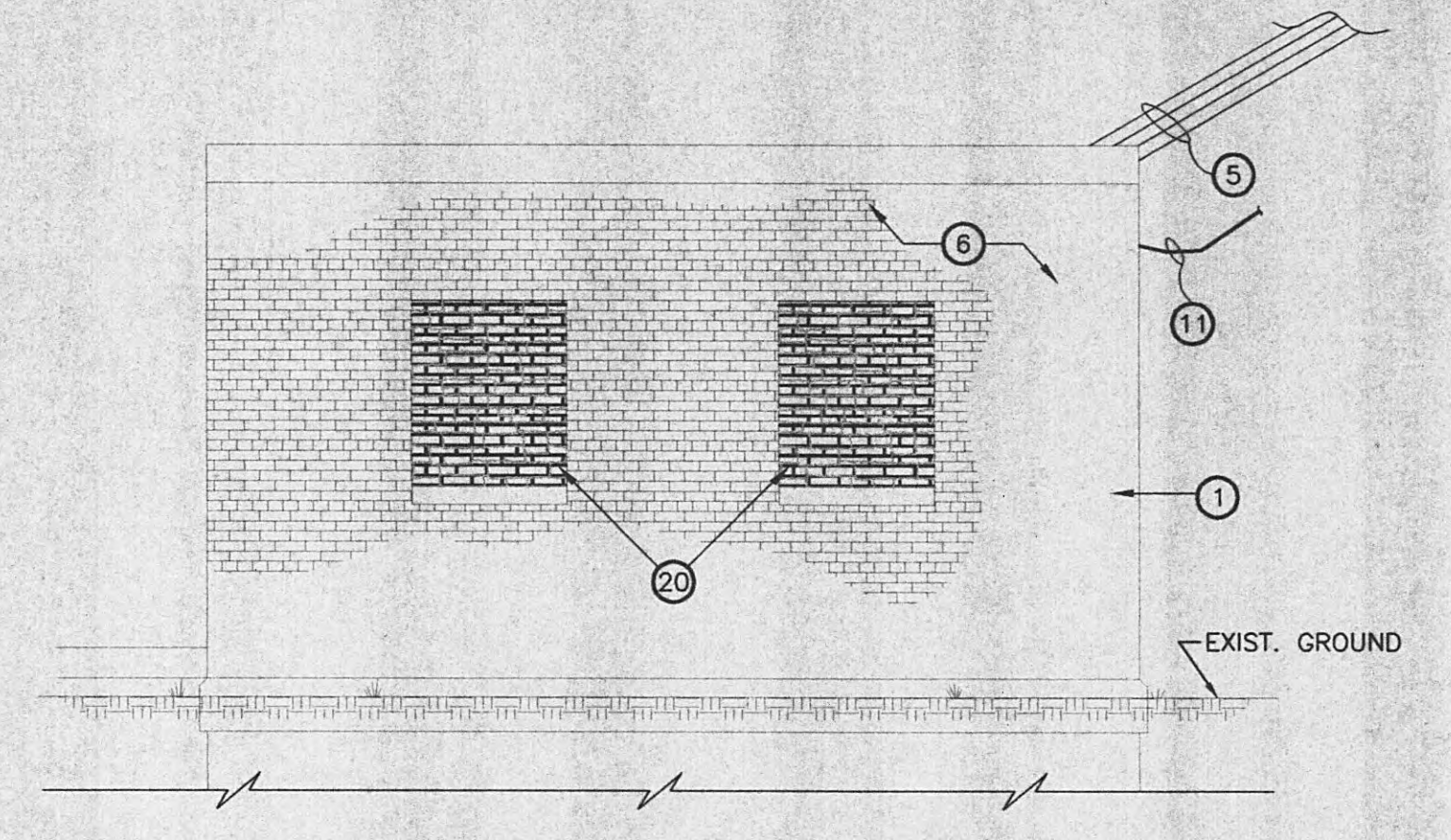
EXISTING SOUTH ELEVATION 1
SCALE: 1/4" = 1'-0" A-5



EXISTING WEST ELEVATION 2
SCALE: 1/4" = 1'-0" A-5



EXISTING NORTH ELEVATION 3
SCALE: 1/4" = 1'-0" A-5



EXISTING EAST ELEVATION 4
SCALE: 1/4" = 1'-0" A-5

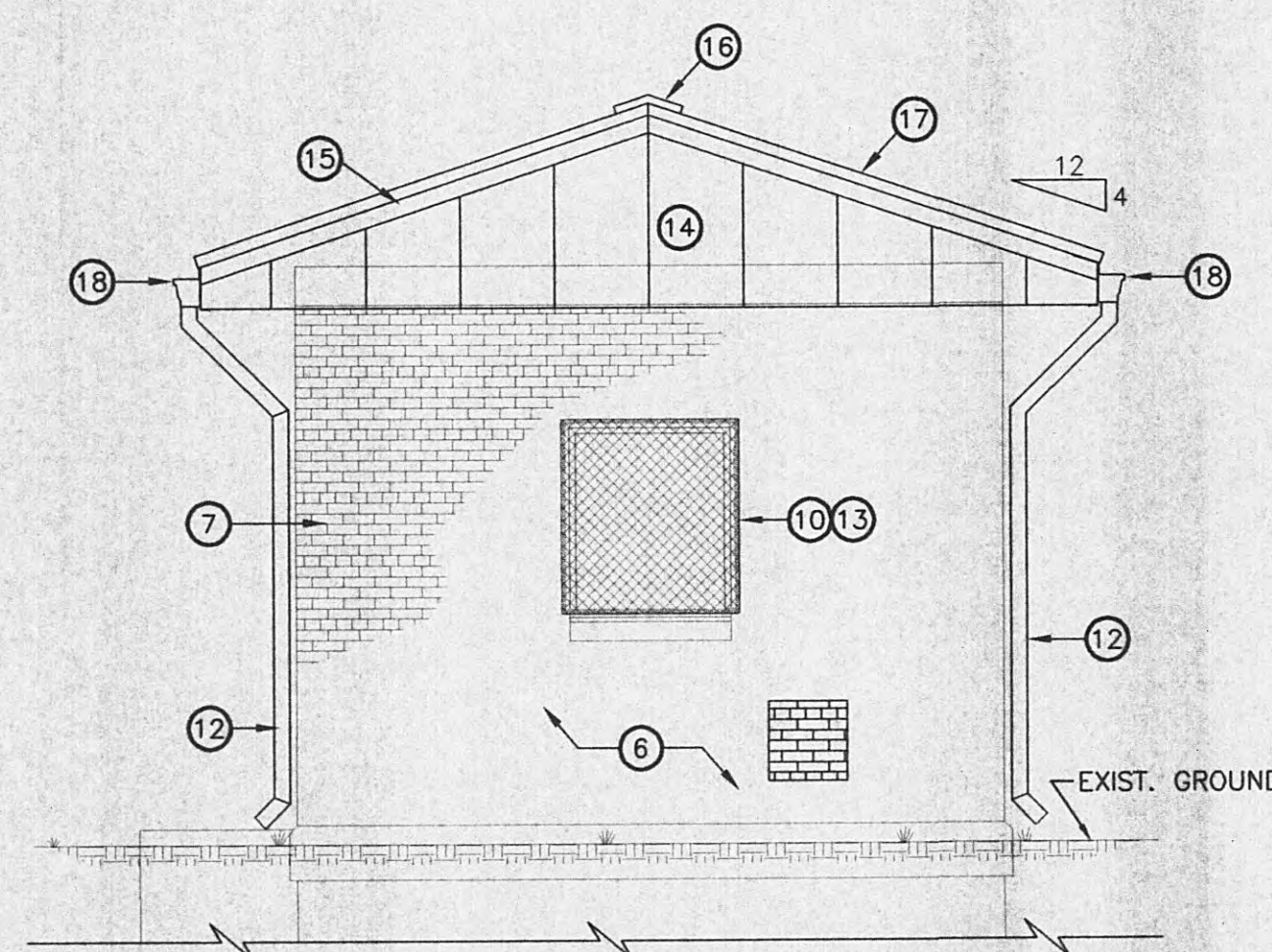
KEYNOTES:

- 1 EXISTING BRICK COMPOSITE WALL.
- 2 EXISTING DOOR AND FRAME TO BE REMOVED.
- 3 EXISTING TRANSOM ABOVE DOOR TO BE REMOVED.
- 4 EXISTING WINDOWS TO BE REMOVED.
- 5 EXISTING ELECTRICAL WEATHERHEAD AND LINES TO BE REMOVED FROM EXTERIOR FACE OF BUILDING AND LINES TO BE REROUTED (SEE ELECTRICAL SHEETS FOR INFO).
- 6 EXISTING EXTERIOR WALLS TO BE PRESSURE WASHED AND SEALER APPLIED.
- 7 ALL CRACKS IN MORTAR JOINTS AND HOLES WHERE EQUIPMENT OR PIPES HAVE BEEN REMOVED TO BE REPOINTED.
- 8 PROVIDE NEW OUT SWINGING DOORS WITH NEW FRAME. VERIFY MASONRY OPENING. (PAINT) -SEE DETAIL 4/A-8.
- 9 REPLACE TRANSOM WITH HOLLOW METAL PANEL -PAINT TRANSOM, AND FLASHING TO MATCH DOOR (FIELD VERIFY SIZE AND CONFIGURATION) -SEE DETAIL 4/A-8.
- 10 INSTALL NEW WINDOWS (FIELD VERIFY SIZE AND CONFIGURATION) -SEE DETAIL 3/A-8.
- 11 M.C. ANTENNA TO BE RELOCATED TO ALLOW FOR NEW ROOF SYSTEM -SEE ELECTRICAL SHEETS.

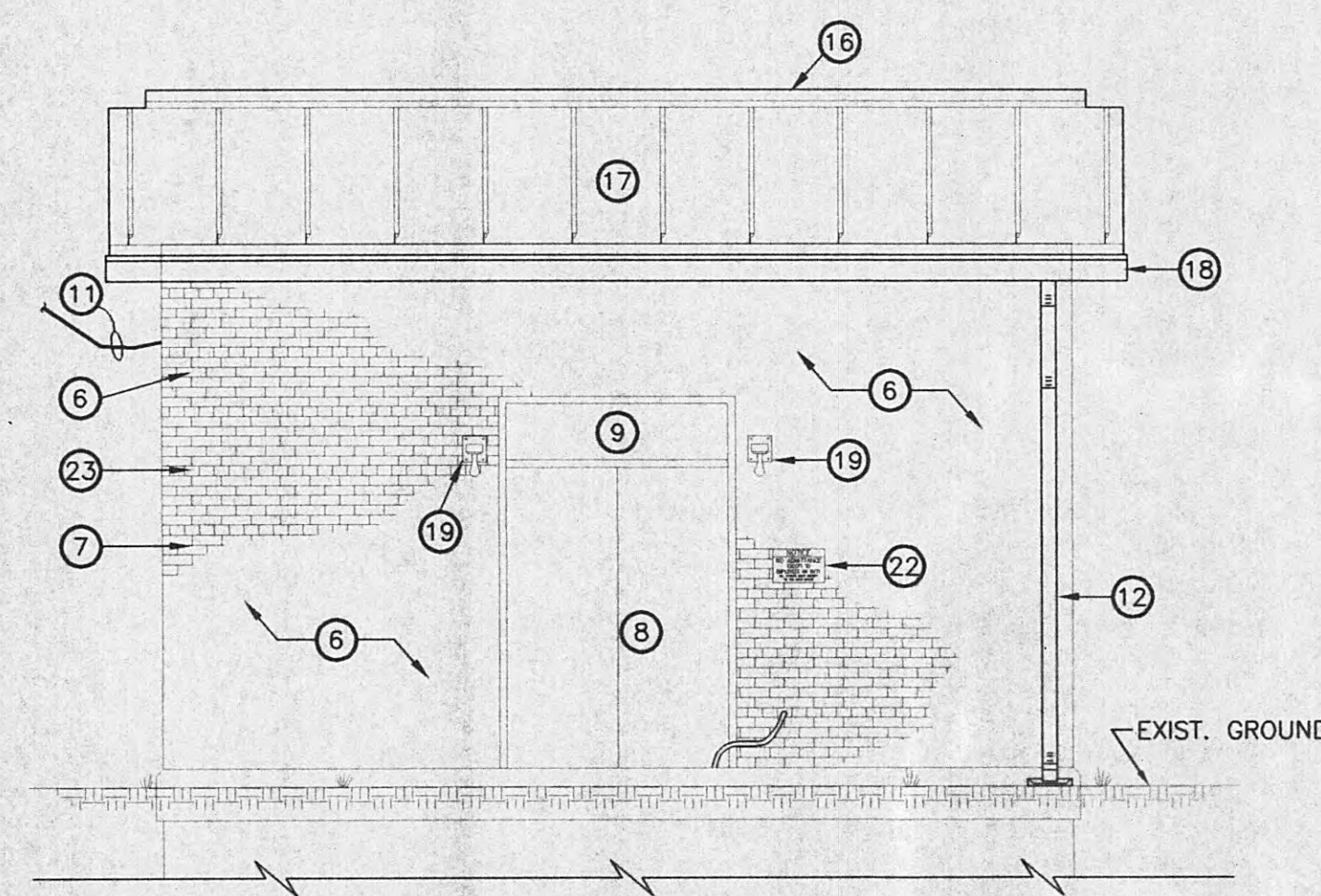
- 12 NEW 4"x4" DOWNSPOUT AND SPLASHBLOCK.
- 13 COVER ALL WINDOWS WITH WINDOW GUARD -SEE DTL. 5/A-8
- 14 MTL. GABLE END PANELS W/1 1/4" DEEP CORRUGATIONS.
- 15 ALUMINUM OVERHANG TRIM
- 16 CONTINUOUS VENTED RIDGE VENT.
- 17 NEW STANDING SEAM MTL. ROOFING
- 18 NEW 6" MTL. GUTTER
- 19 EXTERIOR LIGHTING -SEE ELECTRICAL SHEETS FOR INFO
- 20 REMOVE EXISTING BRICK INFILL AT REAR WINDOWS.
- 21 APPLY NEW BRICK INFILL AT REAR WINDOWS AND BLEND INTO EXISTING BRICK (MATCH MATERIAL AND METHODS OF ORIGINAL FLUSH BRICK WALL).
- 22 SIGNAGE TO REMAIN.
- 23 MINOR TUCK POINTING REQUIRED.
- 24 NEW LOUVER -SEE M SHEETS FOR INFO.

EXTERIOR COLOR SCHEDULE:

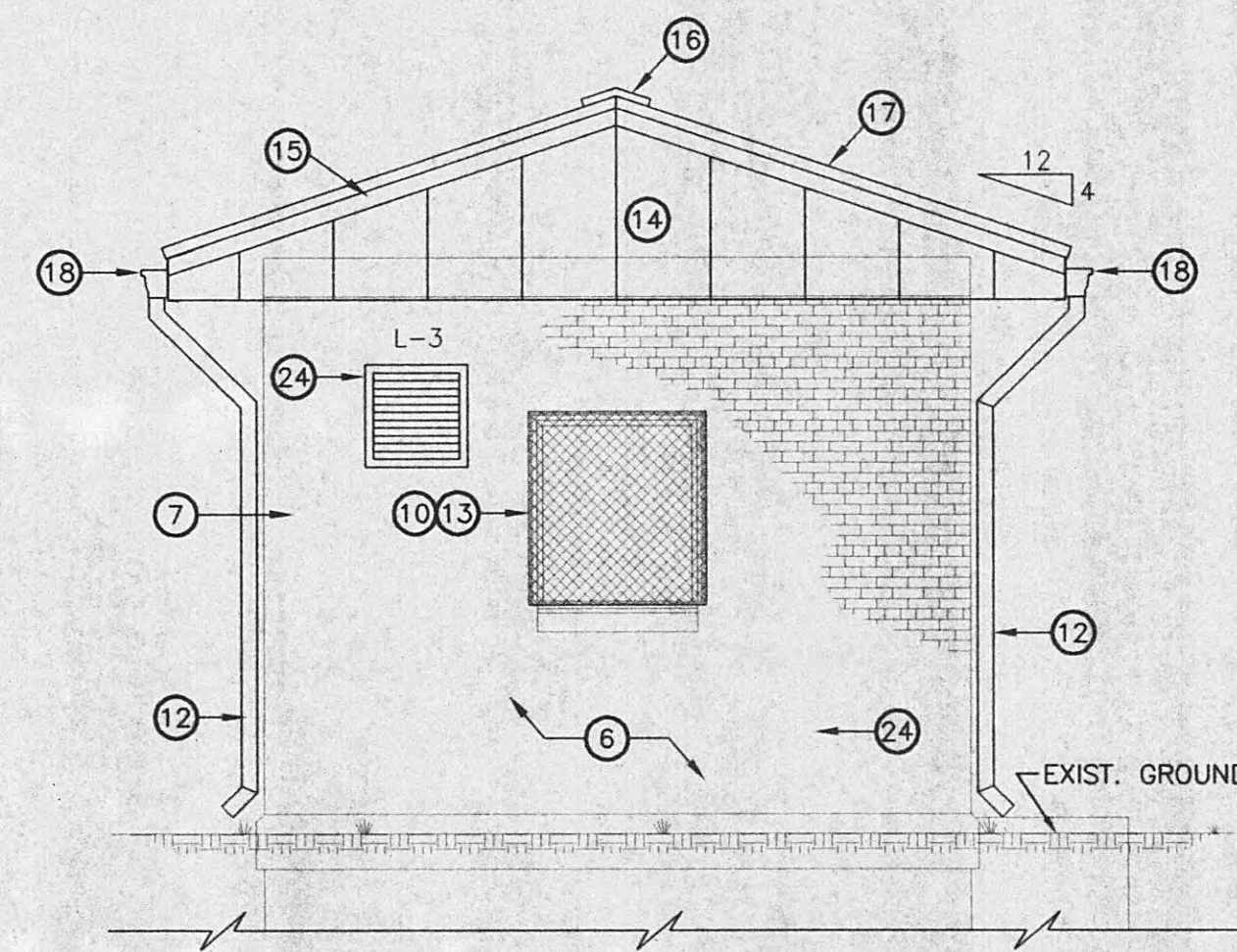
ROOF/RIDGE VENT - FOREST GREEN
SOFFIT/TRIM - WHITE
GUTTER/DOWNSPOUT - WHITE
METAL GABLE - WHITE
DOOR/FRAME - GRAY
WINDOWS - ALUMINUM MILL FINISH
WINDOW GUARDS - GRAY
LOUVER - ALUMINUM MILL FINISH
BRICK - CLEAR SEALER



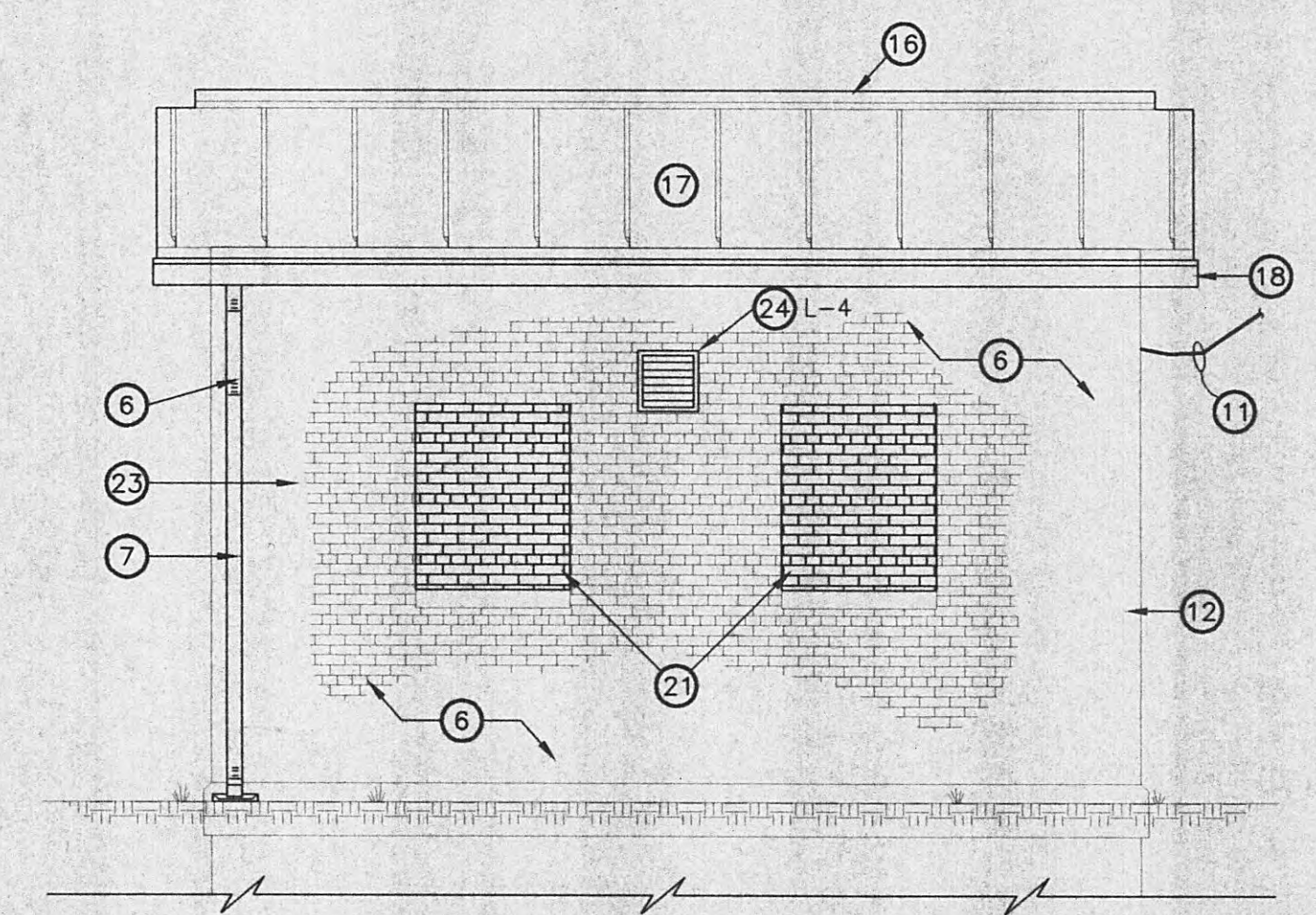
NEW WORK SOUTH ELEVATION 5
SCALE: 1/4" = 1'-0" A-5



NEW WORK WEST ELEVATION 6
SCALE: 1/4" = 1'-0" A-5



NEW WORK NORTH ELEVATION 7
SCALE: 1/4" = 1'-0" A-5



NEW WORK EAST ELEVATION 8
SCALE: 1/4" = 1'-0" A-5

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NO.	DESCRIPTION	DATE	BY
REVISIONS			



GRW PROJECT NO. 7716-01 CONTRACT S05-01

HARRIMAN UTILITY BOARD
HARRIMAN, TENNESSEE
WALNUT HILL PUMP STATION
DEMO & NEW WORK ELEVATIONS

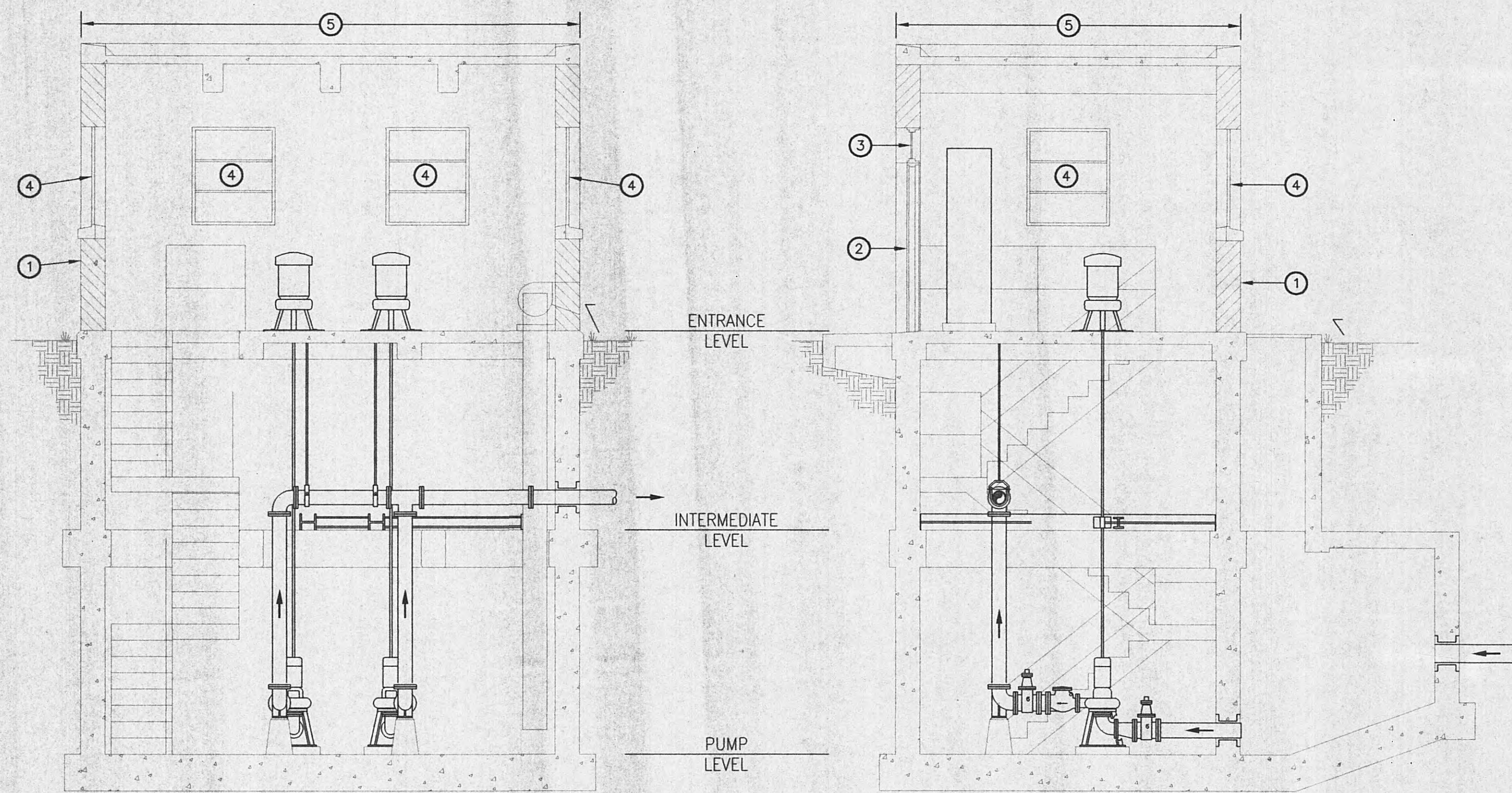
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DRAWN: STAFF SCALE: AS NOTED
REVIEWED: JCP SHEET NO.
APPROVED: JCP

GRW
Elrod Dunson, Inc.
Engineers, Architects, Planners
LEXINGTON LOUISVILLE INDIANAPOLIS
NASHVILLE KNOXVILLE

A-5

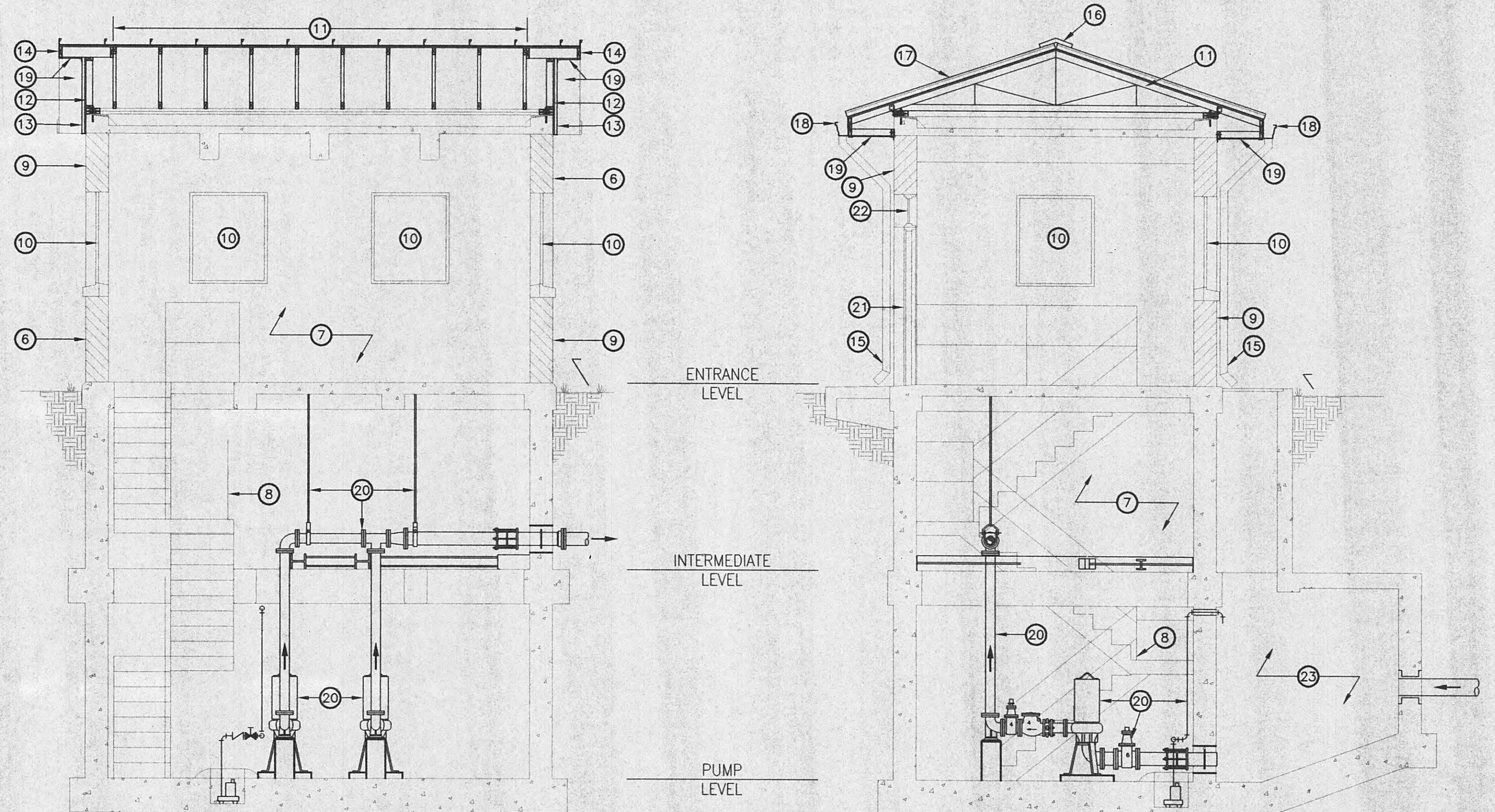
KEYNOTES:

- 1 EXISTING BRICK COMPOSITE WALL.
- 2 EXISTING DOOR AND FRAME TO BE REMOVED.
- 3 EXISTING TRANSOM ABOVE DOOR TO BE REMOVED.
- 4 EXISTING WINDOWS TO BE REMOVED.
- 5 REMOVE EXISTING ROOFING MATERIAL AND LEVEL OFF TOP OF CONCRETE SLAB WITH GROUT TO ALLOW FOR NEW ROOF SYSTEM -SEE DTL. 1 & 2/A-8
- 6 EXISTING EXTERIOR WALLS TO BE PRESSURE WASHED AND SEALER APPLIED.
- 7 EXISTING INTERIOR WALLS AND CEILINGS TO BE PRESSURE WASHED AND PAINTED -PATCH ALL HOLES WHERE EQUIPMENT HAS BEEN REMOVED.(TYPICAL ALL LEVELS).
- 8 EXISTING HANDRAIL TO BE RE-ANCHORED AS REQUIRED, WHERE LOOSE, -ALL LEVELS, PAINT.
- 9 ALL CRACKS IN MORTAR JOINTS AND HOLES WHERE EQUIPMENT OR PIPES HAVE BEEN REMOVED TO BE REPOINTED.
- 10 NEW WINDOW TO BE INSTALLED (FIELD VERIFY SIZE) COVER ALL WINDOWS WITH WINDOW GUARD -SEE DTL. 3 & 5/A-8
- 11 PRE-ENGINEERED WOOD TRUSS @ 24" O.C. -SEE ROOF PLAN SHT. A-3
- 12 GABLE END FRAMING -SEE DTL. 2/A8
- 13 METAL GABLE END PANELS -SEE DTL. 2/A-8.
- 14 METAL CLOSURE TRIM -SEE DTL. 2/A-8
- 15 NEW 4"x4" DOWNSPOUT AND SPLASHBLOCK.
- 16 NEW CONTINUOUS RIDGE VENT.
- 17 NEW STANDING SEAM METAL ROOF PANELS
- 18 NEW 6" MTL. GUTTER
- 19 PERFORATED METAL SOFFIT -SEE DTL. 1/A-8
- 20 SEE "C" & "M" SHEETS FOR INFO
- 21 NEW OUT SWINGING DOORS WITH NEW FRAME. VERIFY MASONRY OPENING. (PAINT) -SEE DETAIL 4/A-8.
- 22 NEW TRANSOM WITH HOLLOW METAL PANEL -PAINT TRANSOM, AND FLASHING TO MATCH DOOR (FIELD VERIFY SIZE AND CONFIGURATION) -SEE DETAIL 4/A-8.
- 23 CLEANOUT EXISTING WET WELL AFTER COMPLETION OF ALL CONSTRUCTION.



EXISTING CONDITIONS - SECTION 1
SCALE: 1/4" = 1'-0"

EXISTING CONDITIONS - SECTION 2
SCALE: 1/4" = 1'-0"



NEW WORK - SECTION 3
SCALE: 1/4" = 1'-0"

NEW WORK - SECTION 4
SCALE: 1/4" = 1'-0"

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NO.	DESCRIPTION	DATE	BY
REVISIONS			

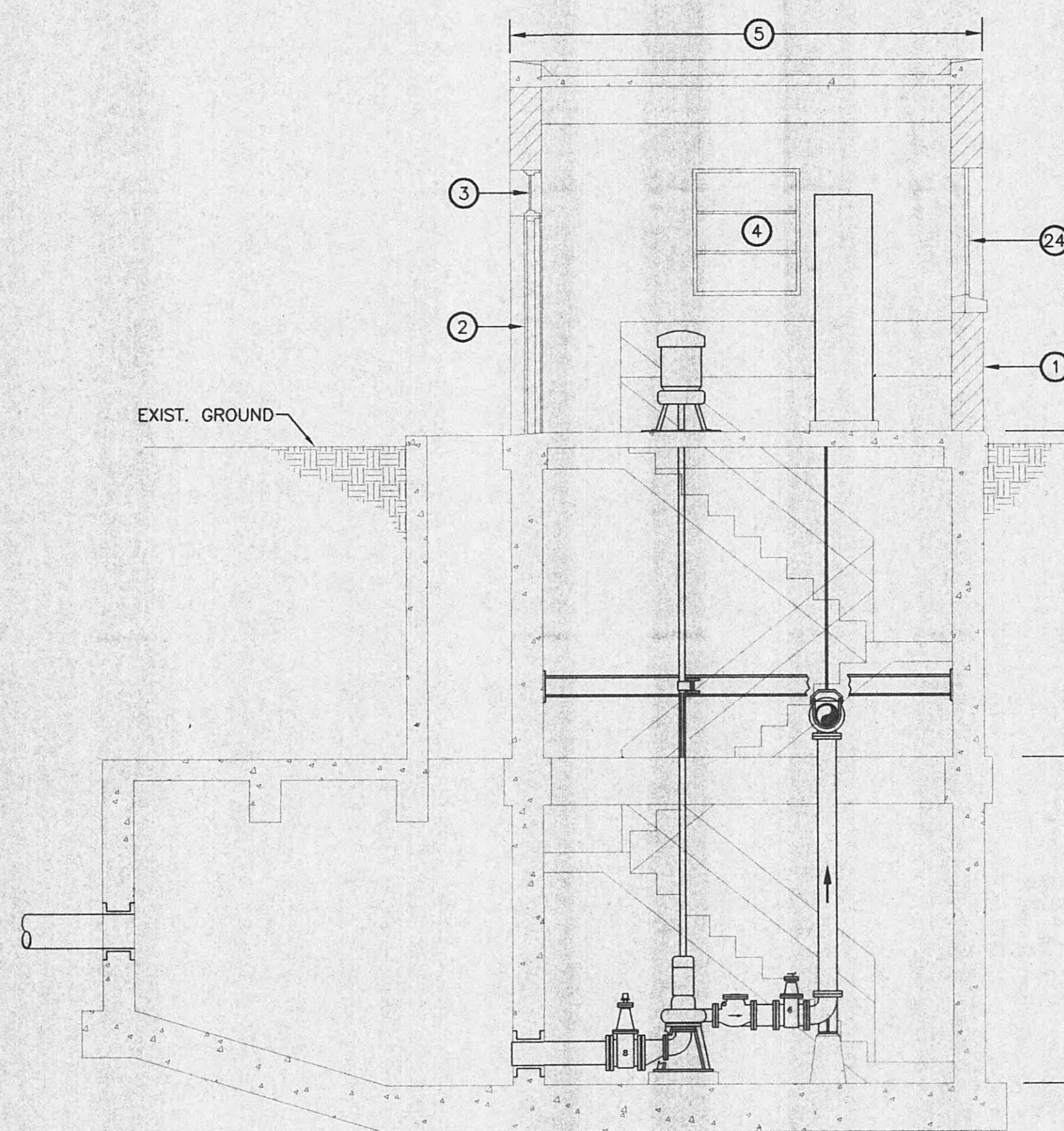


GRW PROJECT NO. 7716--01		CONTRACT S05-01	
HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE CHERRY ST. PUMP STATION DEMO & NEW WORK SECTIONS			
 GRW Elrod Dunson, Inc. Engineers, Architects, Planners LEXINGTON LOUISVILLE INDIANAPOLIS NASHVILLE KNOXVILLE		DESIGNED: JCP	DATE: JANUARY, 2005
		DRAWN: STAFF	SCALE: AS NOTED
		REVIEWED: JCP	SHEET NO.
		APPROVED: JCP	A-6

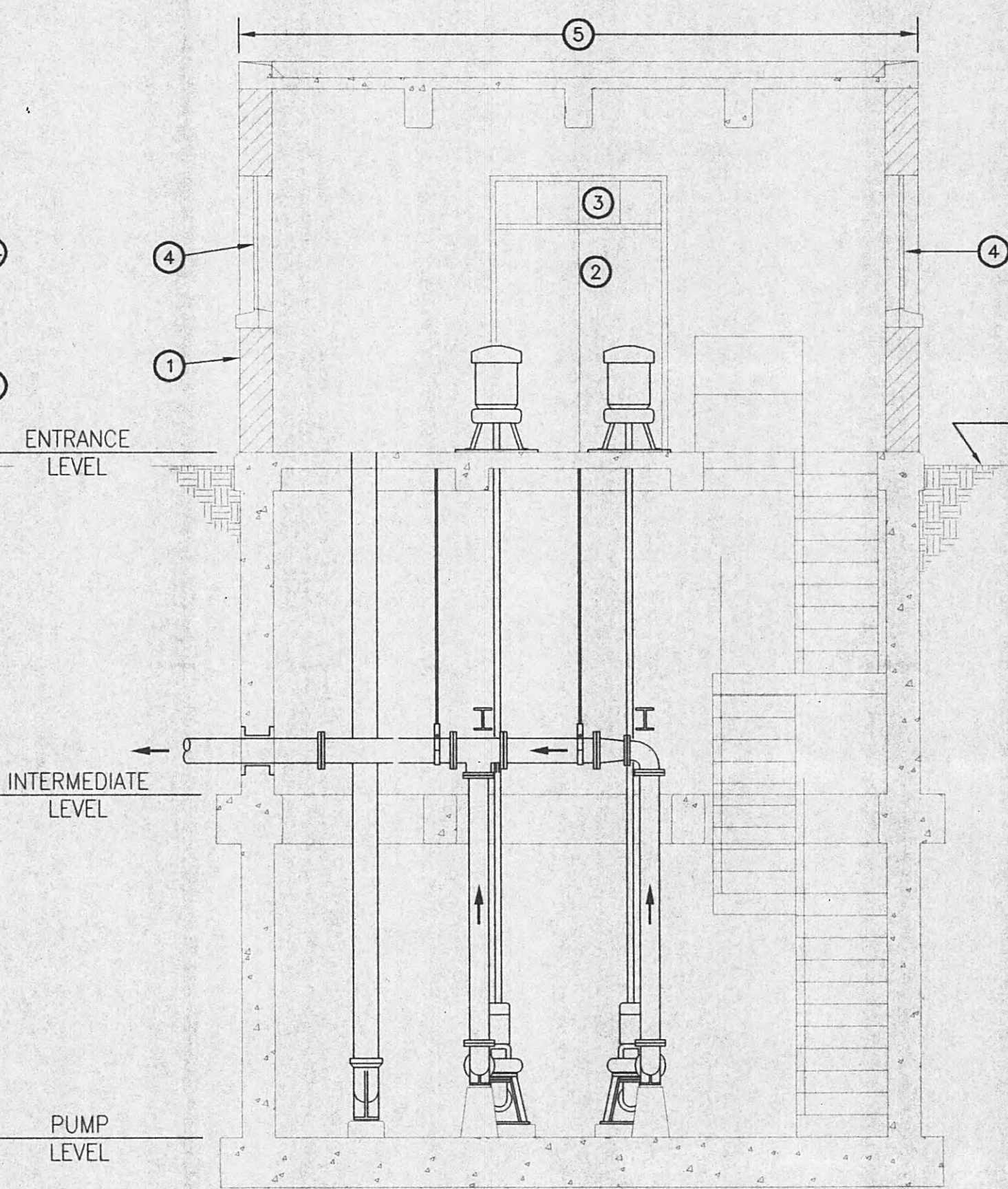


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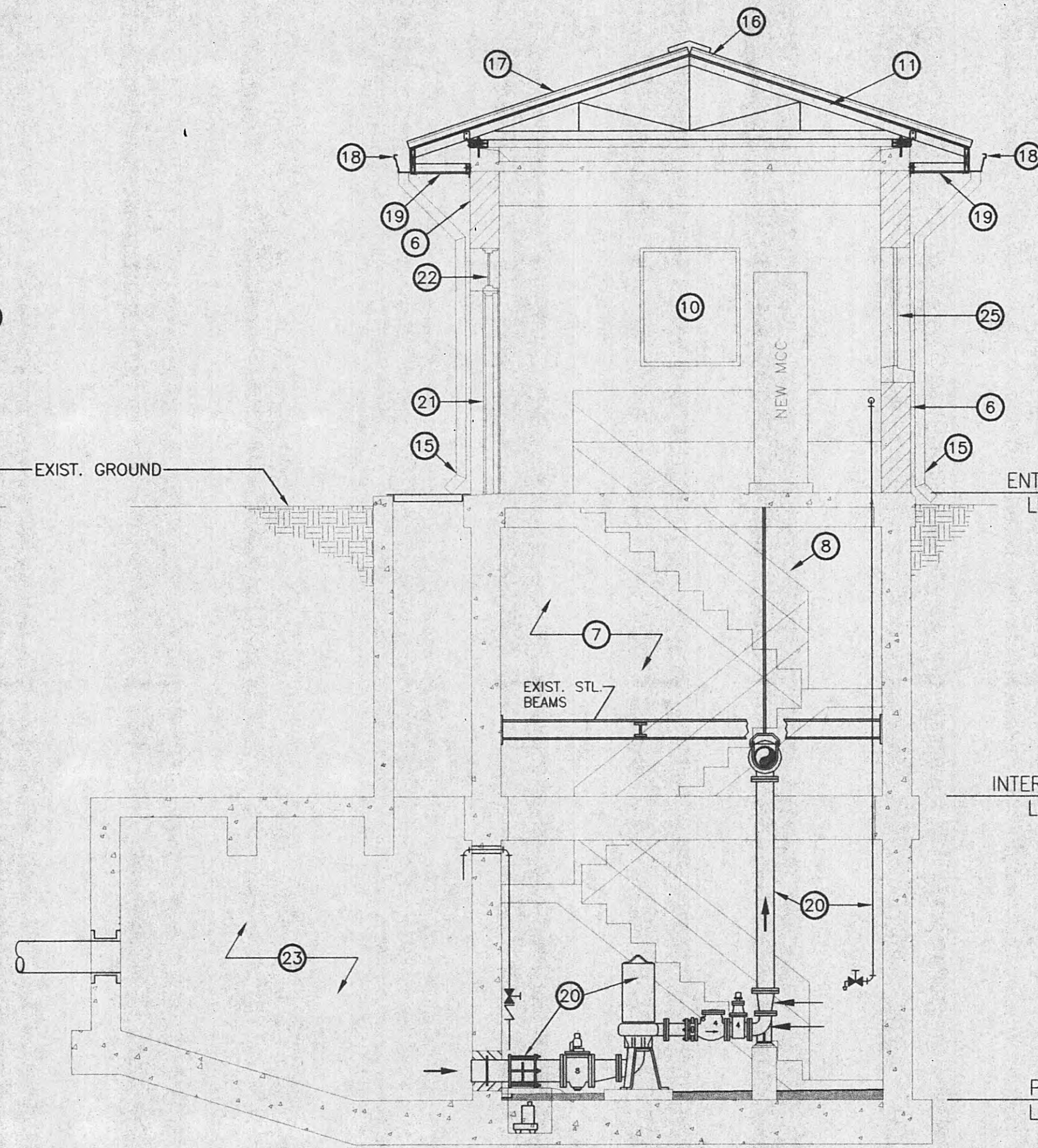
- 1 EXISTING BRICK COMPOSITE WALL.
- 2 EXISTING DOOR AND FRAME TO BE REMOVED.
- 3 EXISTING TRANSOM ABOVE DOOR TO BE REMOVED.
- 4 EXISTING WINDOWS TO BE REMOVED.
- 5 REMOVE EXISTING ROOFING MATERIAL AND LEVEL OFF TOP OF CONCRETE SLAB WITH GROUT TO ALLOW FOR NEW ROOF SYSTEM -SEE DTL. 1 & 2/A-8
- 6 EXISTING EXTERIOR WALLS TO BE PRESSURE WASHED AND SEALER APPLIED.
- 7 EXISTING INTERIOR WALLS AND CEILINGS TO BE PRESSURE WASHED AND PAINTED -PATCH ALL HOLES WHERE EQUIPMENT HAS BEEN REMOVED.(TYPICAL ALL LEVELS).
- 8 EXISTING HANDRAIL TO BE RE-ANCHORED AS REQUIRED, WHERE LOOSE, -ALL LEVELS, PAINT.
- 9 ALL CRACKS IN MORTAR JOINTS AND HOLES WHERE EQUIPMENT OR PIPES HAVE BEEN REMOVED TO BE REPOINTED.
- 10 NEW WINDOW TO BE INSTALLED (FIELD VERIFY SIZE) COVER ALL WINDOWS WITH WINDOW GUARD -SEE DTL. 3 & 5/A-8
- 11 PRE-ENGINEERED WOOD TRUSS @ 24" O.C. -SEE ROOF PLAN SHT. A-3
- 12 GABLE END FRAMING -SEE DTL. 2/A8
- 13 METAL GABLE END PANELS -SEE DTL. 2/A-8.
- 14 METAL CLOSURE TRIM -SEE DTL. 2/A-8
- 15 NEW 4"x4" DOWNSPOUT AND SPLASHBLOCK.
- 16 NEW CONTINUOUS RIDGE VENT.
- 17 NEW STANDING SEAM METAL ROOF PANELS
- 18 NEW 6" MTL. GUTTER
- 19 PERFORATED METAL SOFFIT -SEE DTL. 1/A-8
- 20 SEE "C" & "M" SHEETS FOR INFO
- 21 NEW OUT SWINGING DOORS WITH NEW FRAME. VERIFY MASONRY OPENING. (PAINT) -SEE DETAIL 4/A-8.
- 22 NEW TRANSOM WITH HOLLOW METAL PANEL -PAINT TRANSOM, AND FLASHING TO MATCH DOOR (FIELD VERIFY SIZE AND CONFIGURATION) -SEE DETAIL 4/A-8.
- 23 CLEAN OUT EXISTING WET WELL AFTER COMPLETION OF ALL CONSTRUCTION.
- 24 REMOVE EXISTING BRICK INFILL AT REAR WINDOWS.
- 25 APPLY NEW BRICK INFILL AT REAR WINDOWS AND BLEND INTO EXISTING BRICK (MATCH MATERIAL AND METHODS OF ORIGINAL FLUSH BRICK WALL)



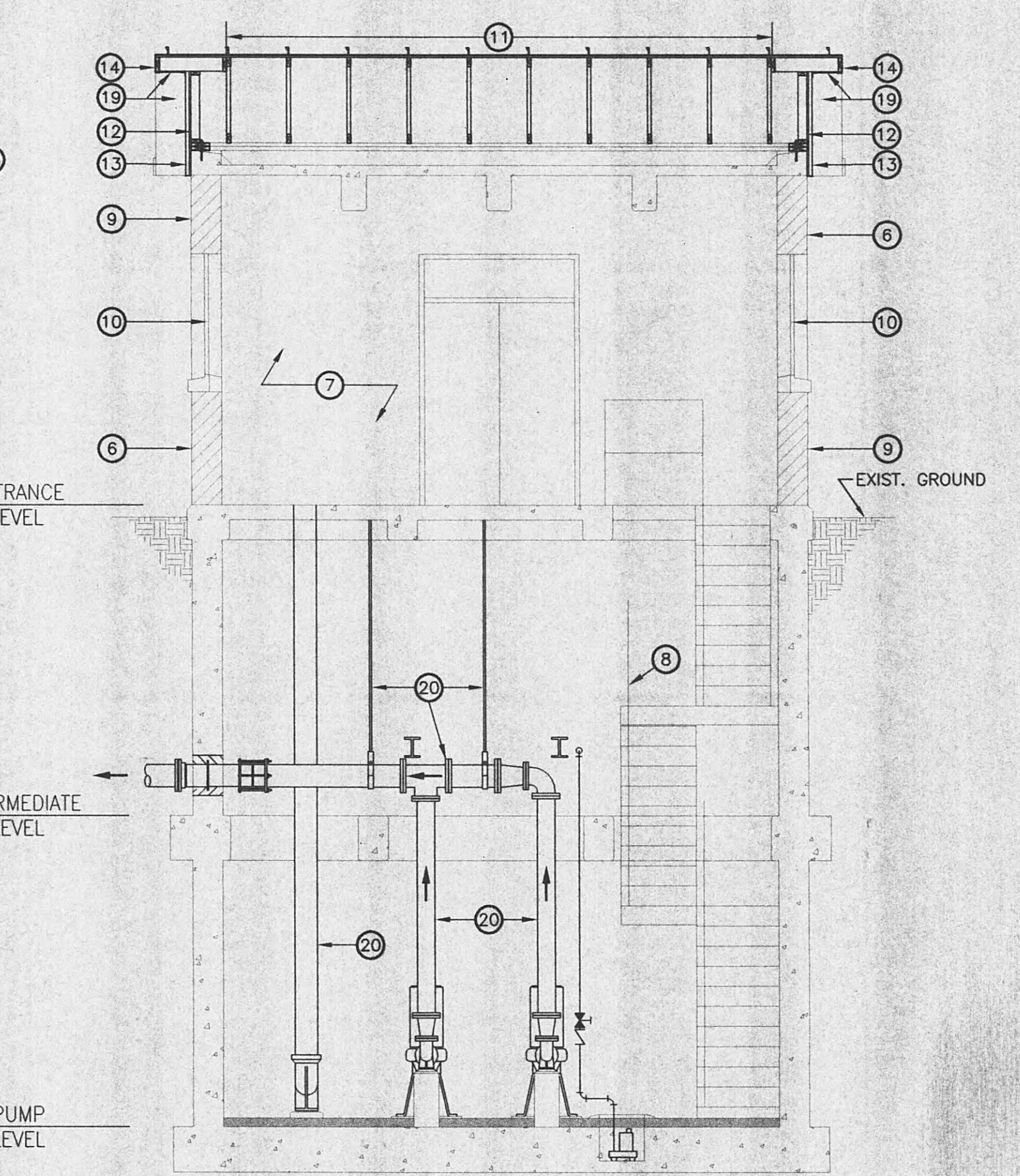
EXISTING CONDITIONS - SECTION 1
SCALE: 1/4" = 1'-0"



EXISTING CONDITIONS - SECTION 2
SCALE: 1/4" = 1'-0"



NEW WORK - SECTION 3
SCALE: 1/4" = 1'-0"



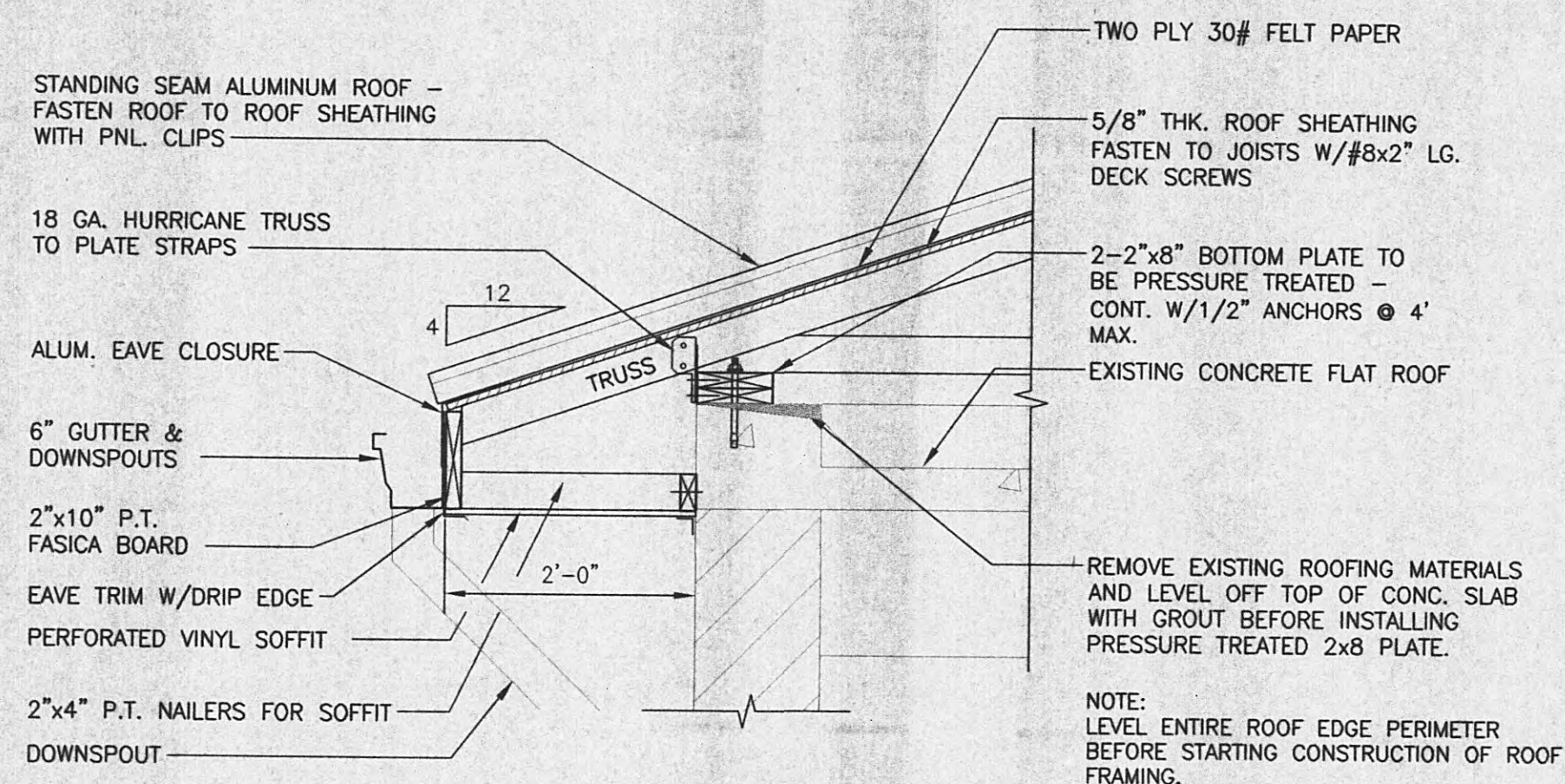
NEW WORK - SECTION 4
SCALE: 1/4" = 1'-0"

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NO.	DESCRIPTION	DATE	BY
REVISIONS			



GRW PROJECT NO. 7716-01		CONTRACT S05-01	
HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE WALNUT HILL PUMP STATION DEMO & NEW WORK SECTIONS			
 GRW Elrod Dunson, Inc. Engineers, Architects, Planners LEXINGTON LOUISVILLE INDIANAPOLIS NASHVILLE KNOXVILLE	DESIGNED: JCP	DATE: JANUARY, 2005	A-7
	DRAWN: STAFF	SCALE: AS NOTED	
	REVIEWED: JCP	SHEET NO.	
	APPROVED: JCP		

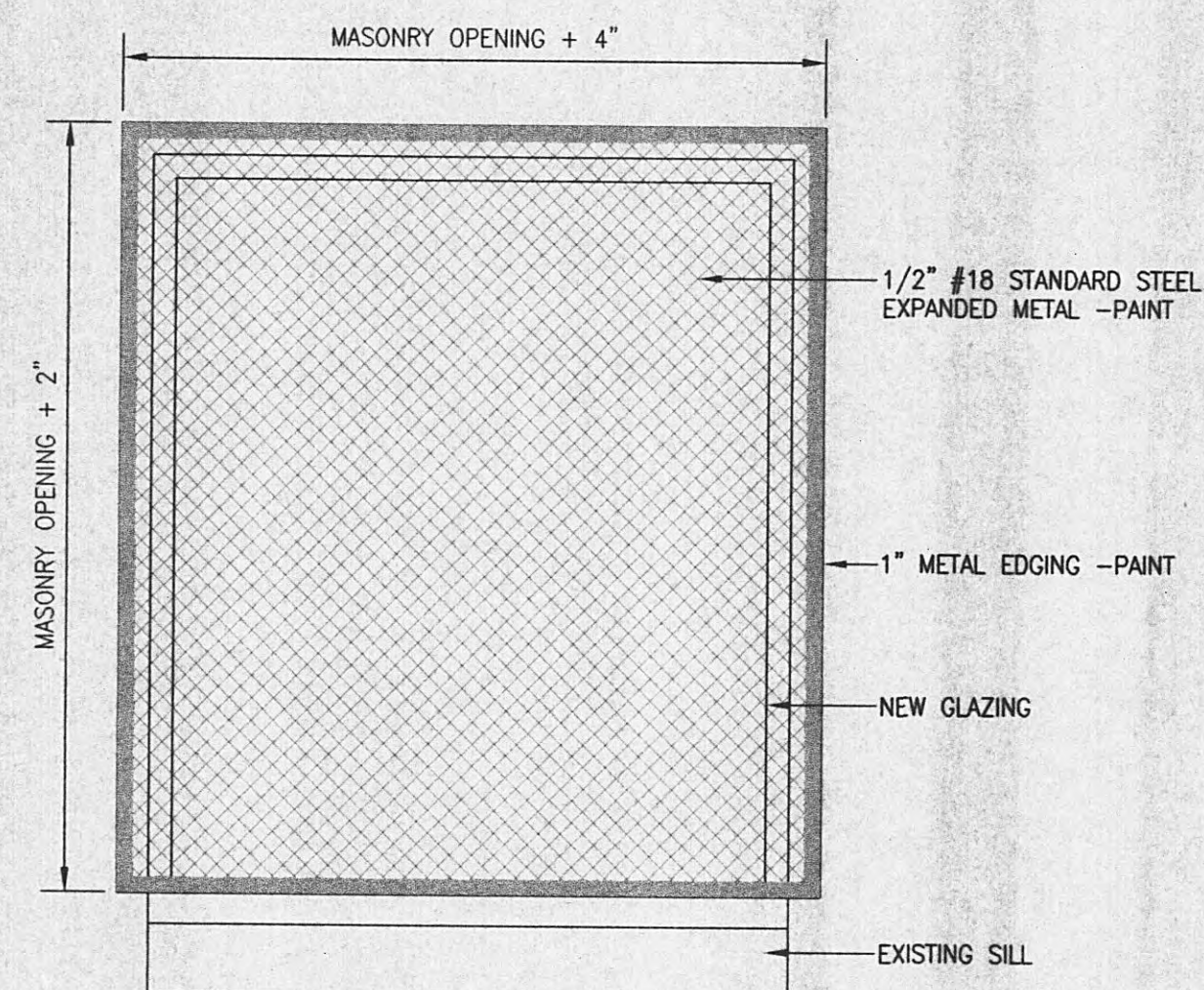




TYPICAL EAVE DETAIL

SCALE: 3/4" = 1'-0"

1
A-8

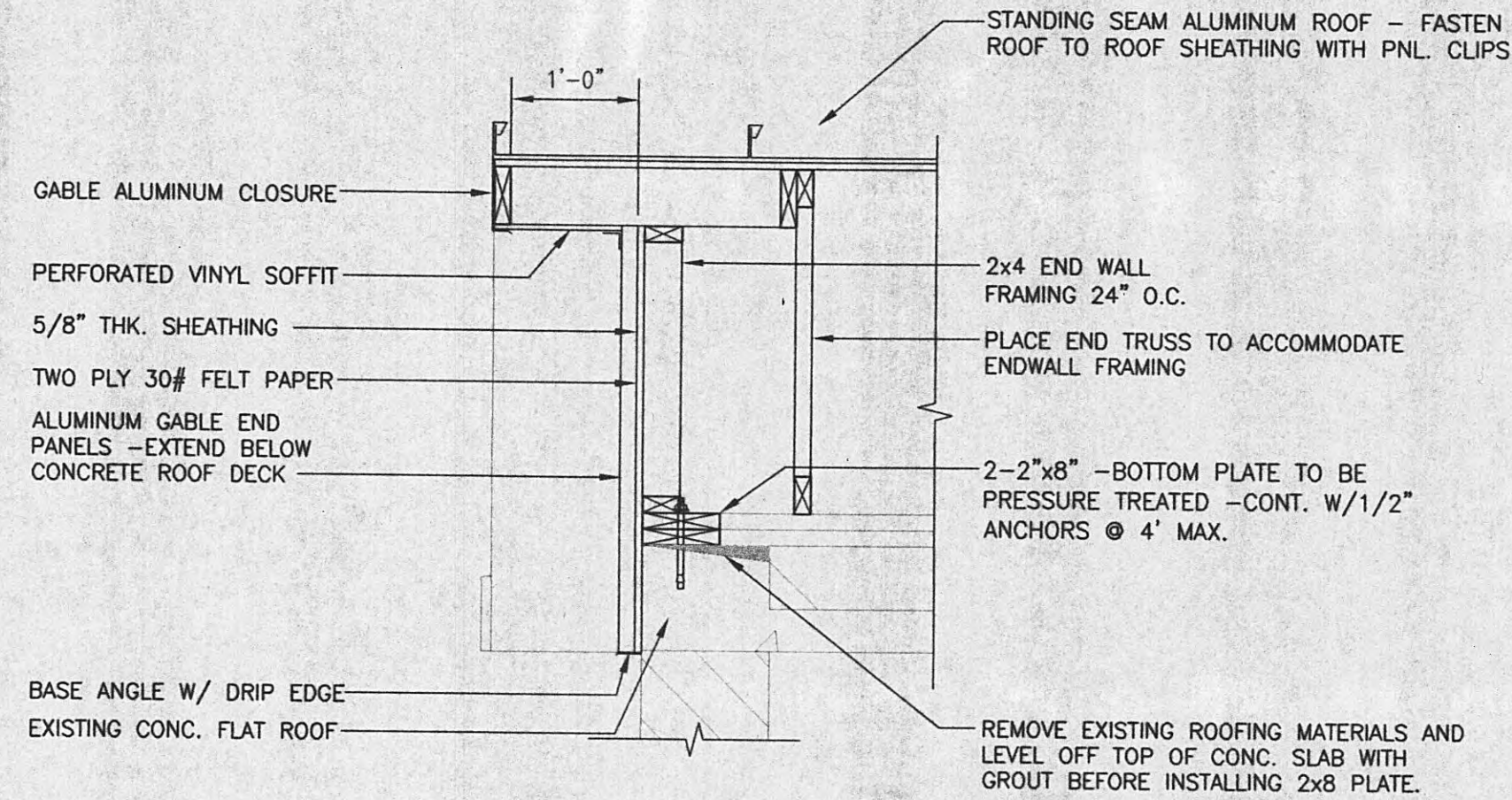


NOTES:
ANCHOR TO MASONRY 4 PLACES MINIMUM.
REMOVE EXISTING WINDOW GUARD, ATTACH NEW WINDOW GUARD
AFTER PRESSURE WASHING AND REPOINTING EXISTING BRICK
MORTAR JOINTS.

WINDOW GUARD DETAIL

SCALE: 1" = 1'-0"

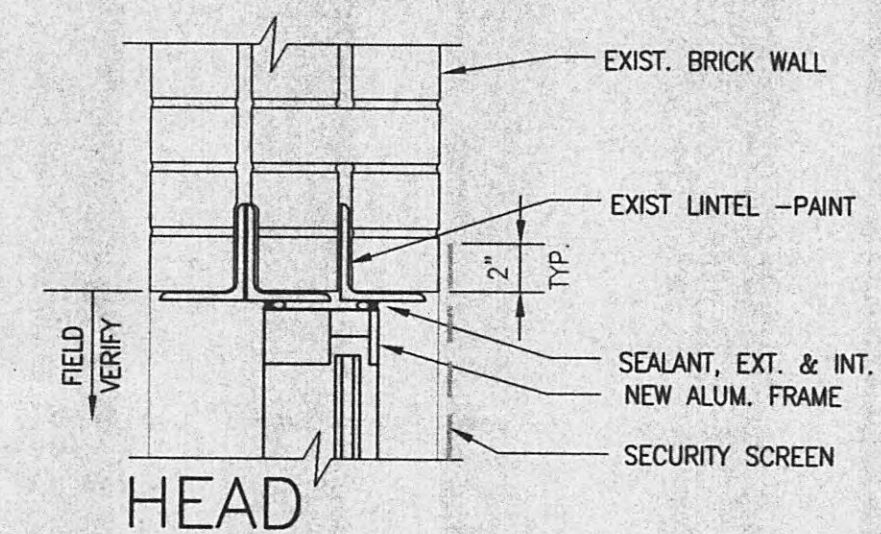
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A-8



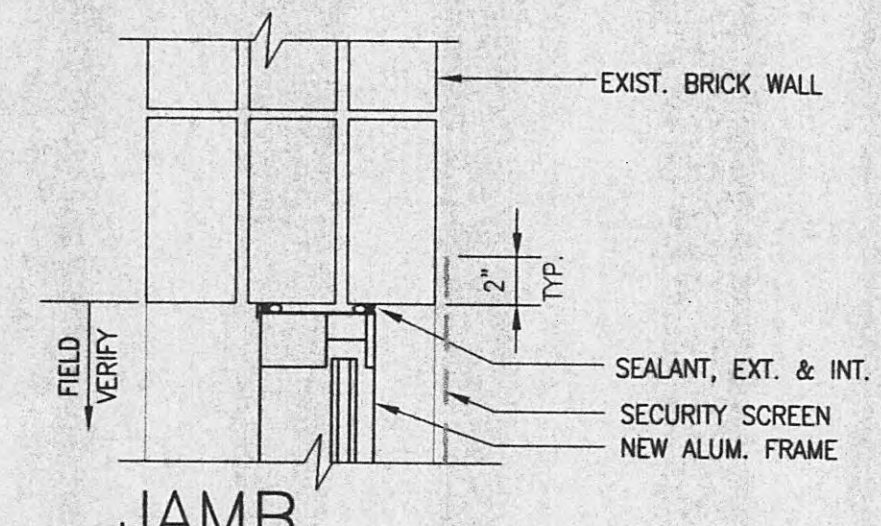
ENDWALL DETAIL

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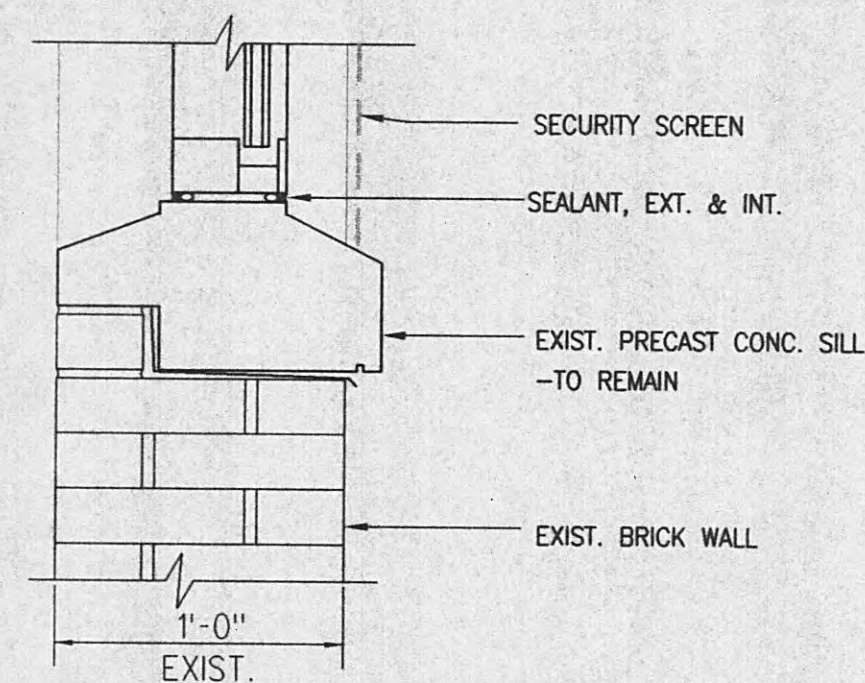
2
A-8



HEAD



JAMB

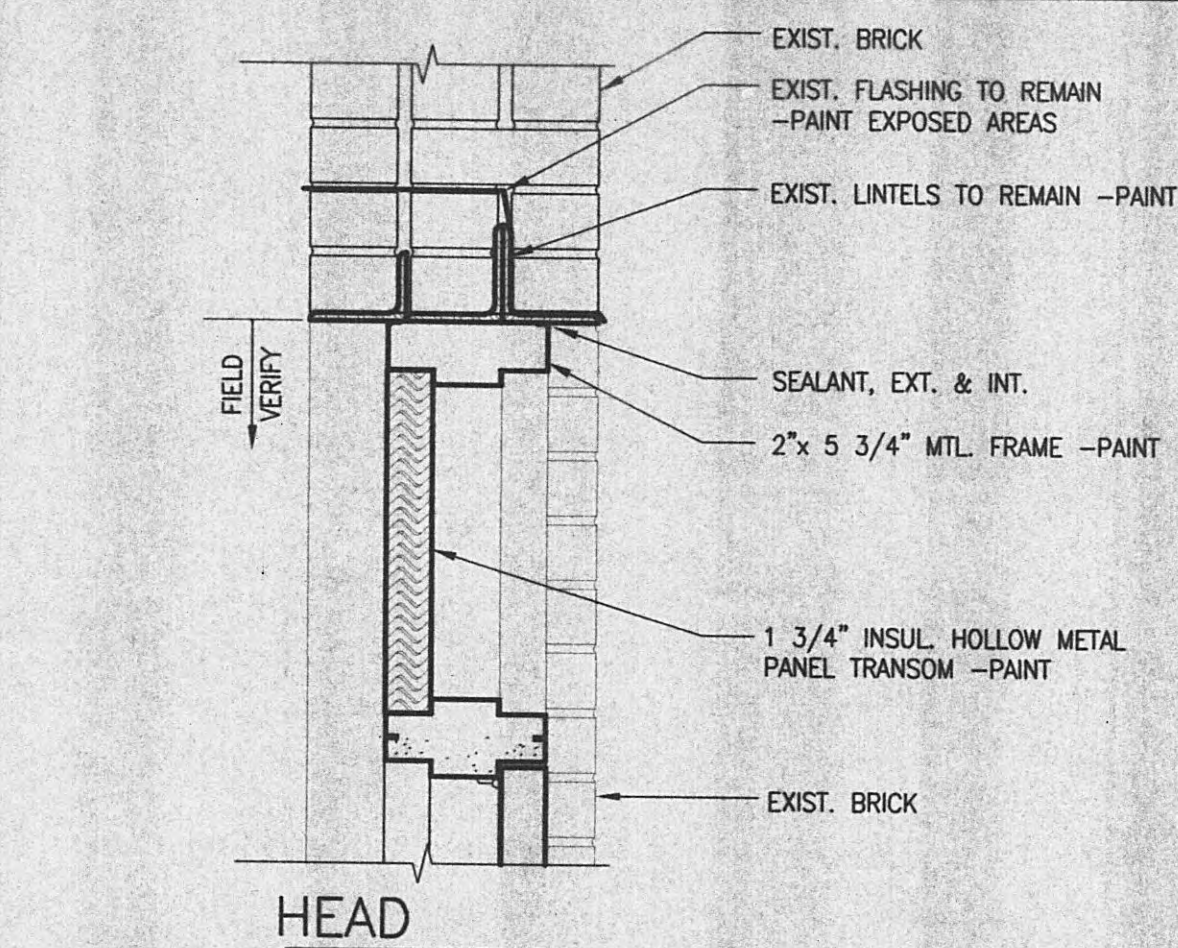


SILL

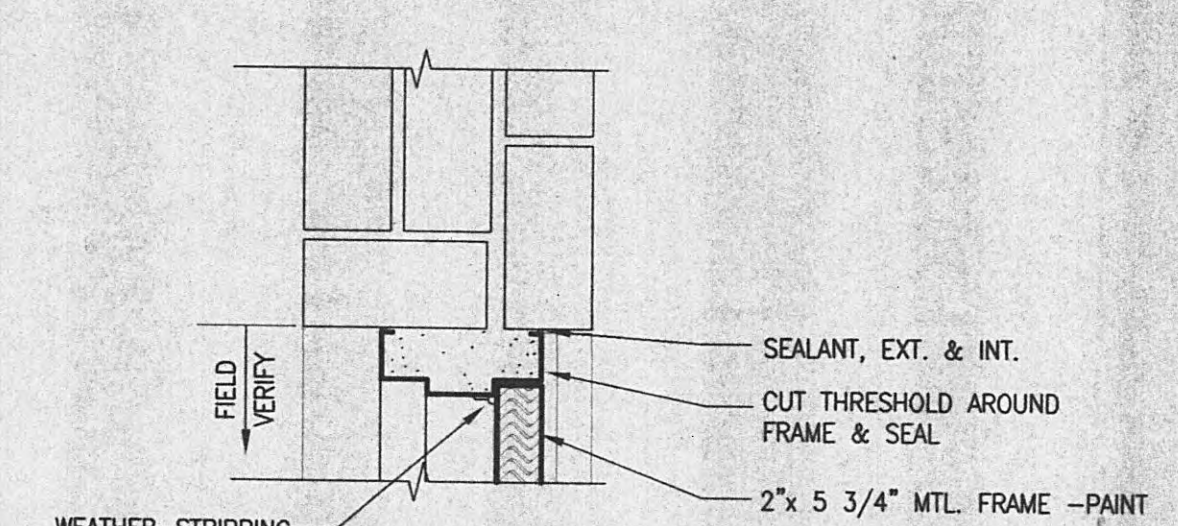
WINDOW DETAILS

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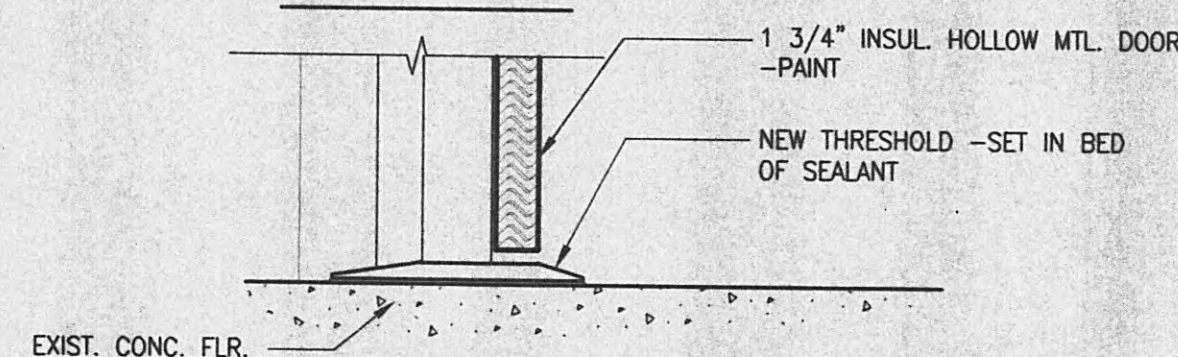
3
A-8



HEAD



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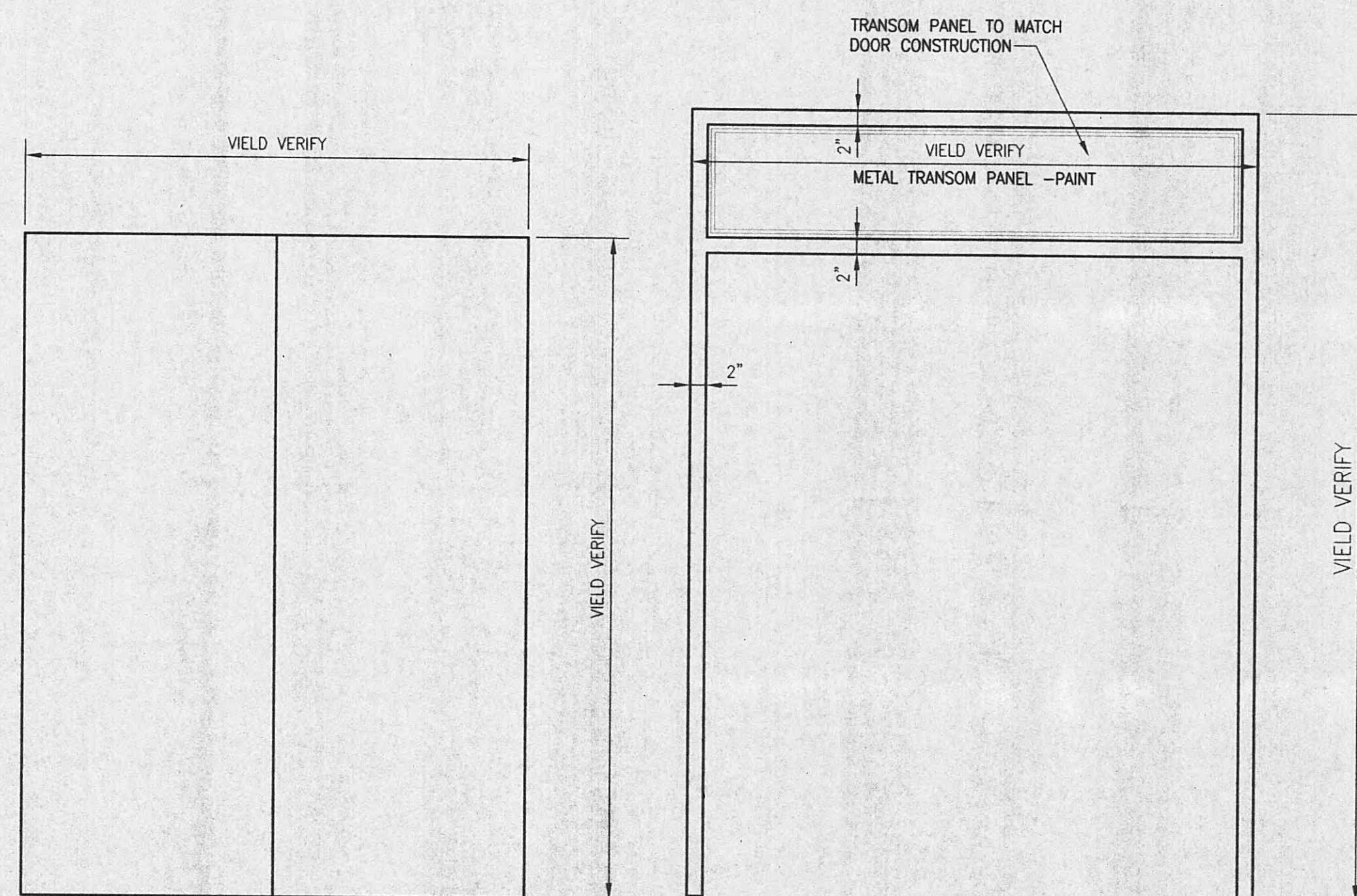


THRESHOLD

DOOR DETAILS

SCALE: 1 1/2" = 1'-0"

4
A-8

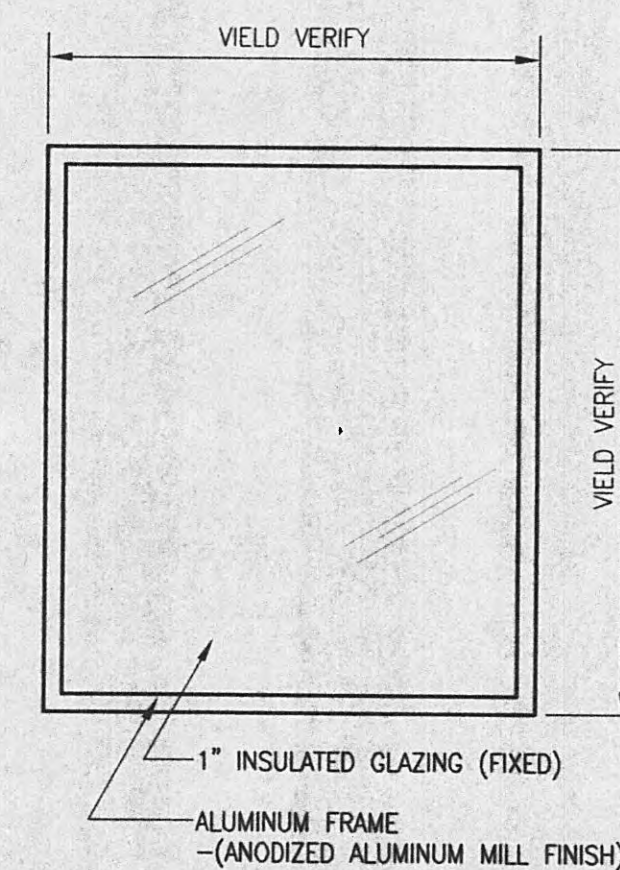


DOOR ELEVATION

SCALE: 3/4" = 1'-0"

FRAME ELEVATION

SCALE: 3/4" = 1'-0"



WINDOW ELEVATION

SCALE: 3/4" = 1'-0"

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NO.	DESCRIPTION	DATE	BY
REVISIONS			



DESIGNED: JCP	DATE: JANUARY, 2005
DRAWN: STAFF	SCALE: AS NOTED
REVIEWED: JCP	SHEET NO. A-8
APPROVED: JCP	

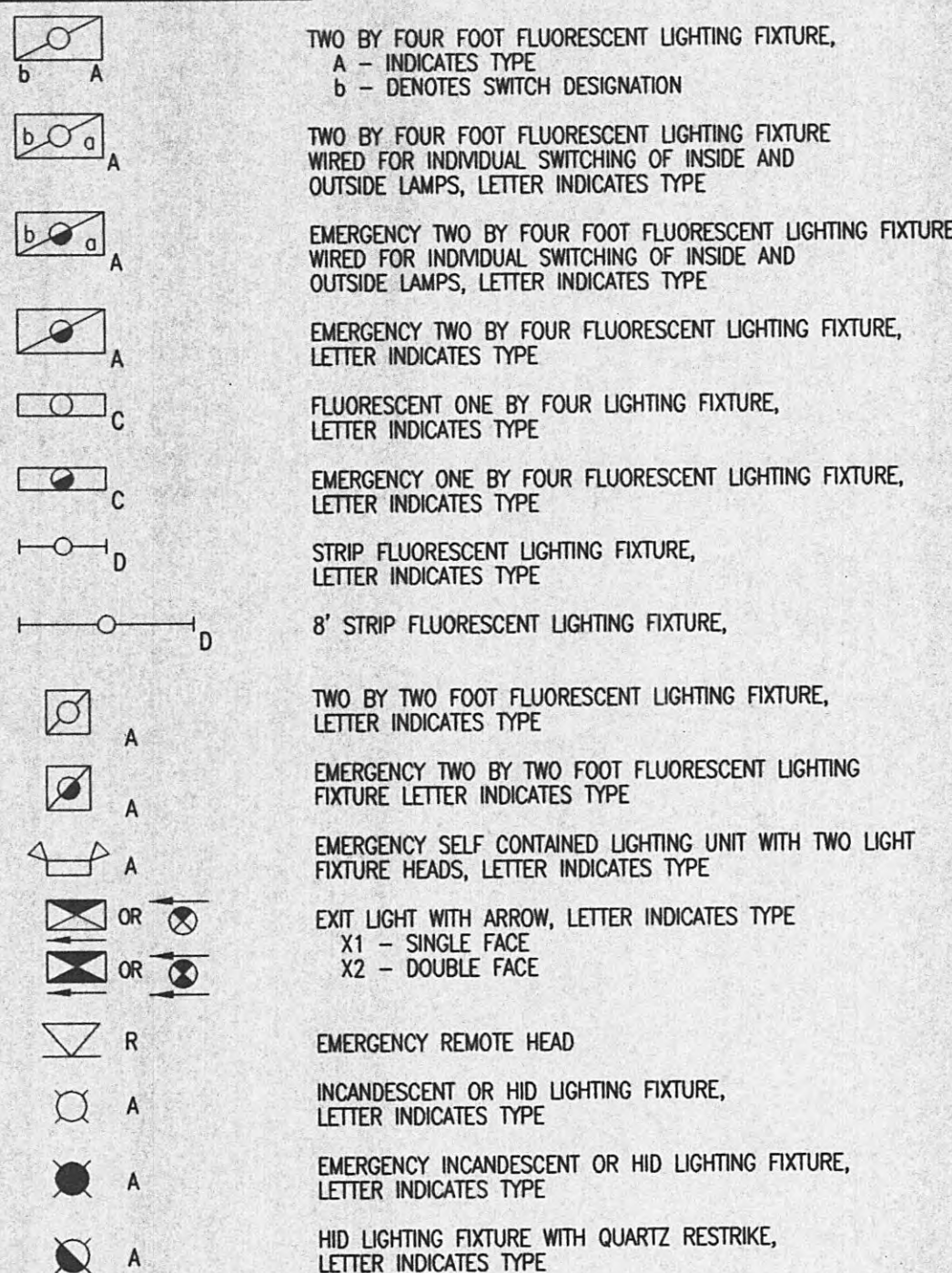
GRW PROJECT NO. 7716-01

CONTRACT S05-01

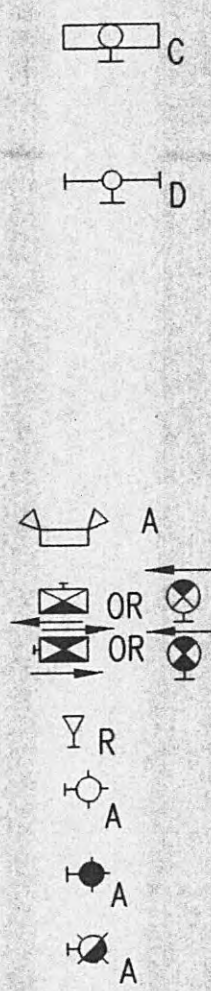
HARRIMAN UTILITY BOARD
HARRIMAN, TENNESSEE
CHERRY ST. & WALNUT HILL PUMP STATION
WINDOW DETAILS & MISC. ARCHITECTURAL DETAILS

CEILING MOUNTED

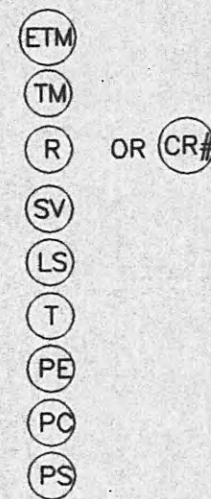
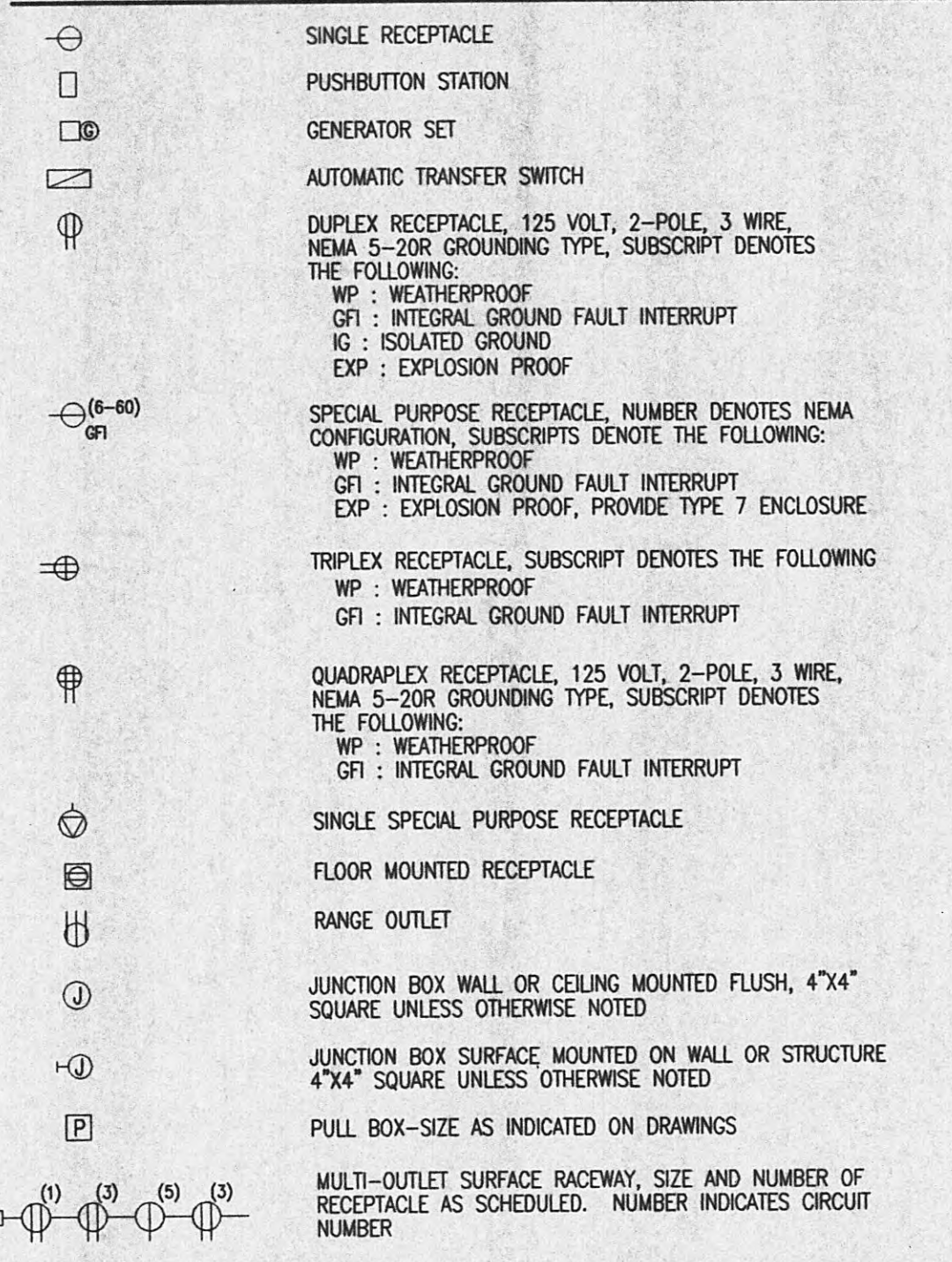
INTERIOR LIGHTING



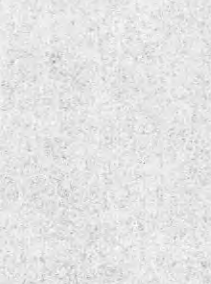
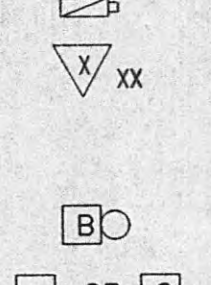
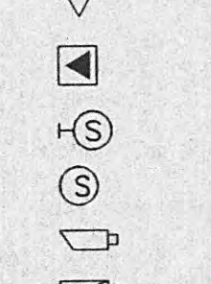
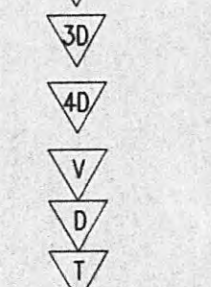
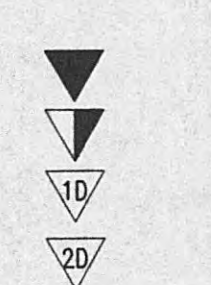
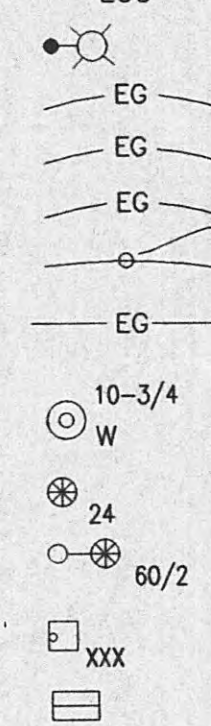
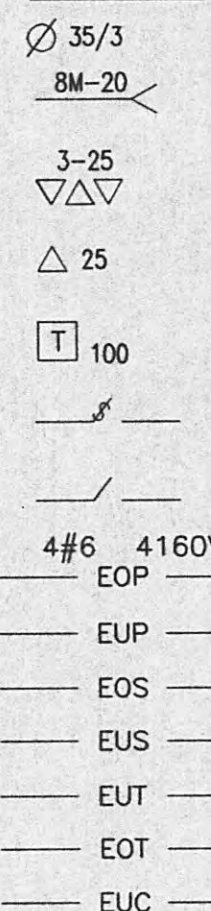
WALL MOUNTED



INTERIOR POWER EQUIPMENT AND DEVICES



EXISTING



ELAPSED TIME METER

TIMER MOTOR

RELAY

SOLENOID VALVE CONNECTION

LIMIT SWITCH CONNECTION

THERMOSTAT CONNECTION

PNEUMATIC/ELECTRIC CONNECTION

PHOTOCELL

PRESSURE SWITCH CONNECTION

EXTERIOR

POLE, LENGTH AND CLASS AS INDICATED

DOWN GUY-NOTED AS 8000 POUND STRENGTH. ANCHOR AT 20 FEET FROM POLE

TRANSFORMER BANK POLE MOUNTED-SHOWN AS THREE PHASE 25 KVA TRANSFORMERS

SINGLE PHASE TRANSFORMER, POLE MOUNTED 25 KVA NOTED

PAD MOUNTED TRANSFORMER INDICATED AS 100 KVA

FUSE OUTLET WITH FUSE SIZE AND TYPE NOTED

DISCONNECT SWITCH OR SECTIONALIZING SWITCH

OVERHEAD PRIMARY-SHOWN AS 4-#6 CONDUCTORS, 4160V

UNDERGROUND PRIMARY

OVERHEAD SECONDARY

UNDERGROUND SECONDARY

UNDERGROUND TELEPHONE CONDUIT

OVERHEAD TELEPHONE

UNDERGROUND COMMUNICATION

POLE MOUNTED LIGHTING FIXTURE

BURIED GROUND WIRE

GROUND WIRE IN OR UNDER FLOOR SLAB

GROUND WIRE EXPOSED

GROUND CONNECTION OR EQUIPMENT BOND

ROOF CONDUCTOR

GROUND ROD. SIZE AS NOTED 10 FT. LENGTH AND 3/4" INCHES DIAMETER NOTED (W DENOTES INSTALLATION IN WELL)

LIGHTNING ROD, (24 INCHES HIGH NOTED)

MAST TYPE LIGHTNING PROTECTION SYSTEM. 60" CLASS 2 POLE NOTED

MANHOLE, SUBSCRIPT DENOTES THE FOLLOWING THE FOLLOWING

XXX=EMH=ELECTRICAL TMH=TELEPHONE CMH=COMMUNICATIONS

WALLPACK EXTERIOR LIGHT FIXTURE

WALLPACK EXTERIOR LIGHT FIXTURE

WALLPACK EXTERIOR LIGHT FIXTURE

WALLPACK EXTERIOR LIGHT FIXTURE

WALLPACK EXTERIOR LIGHT FIXTURE

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WALLPACK EXTERIOR LIGHT FIXTURE

WALLPACK EXTERIOR LIGHT FIXTURE

NEW

POLE, LENGTH AND CLASS AS INDICATED

DOWN GUY-NOTED AS 8000 POUND STRENGTH. ANCHOR AT 20 FEET FROM POLE

TRANSFORMER BANK POLE MOUNTED-SHOWN AS THREE PHASE 25 KVA TRANSFORMERS

SINGLE PHASE TRANSFORMER, POLE MOUNTED 25 KVA NOTED

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GROUND ROD. SIZE AS NOTED 10 FT. LENGTH AND 3/4" INCHES DIAMETER NOTED (W DENOTES INSTALLATION IN WELL)

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WALLPACK EXTERIOR LIGHT FIXTURE

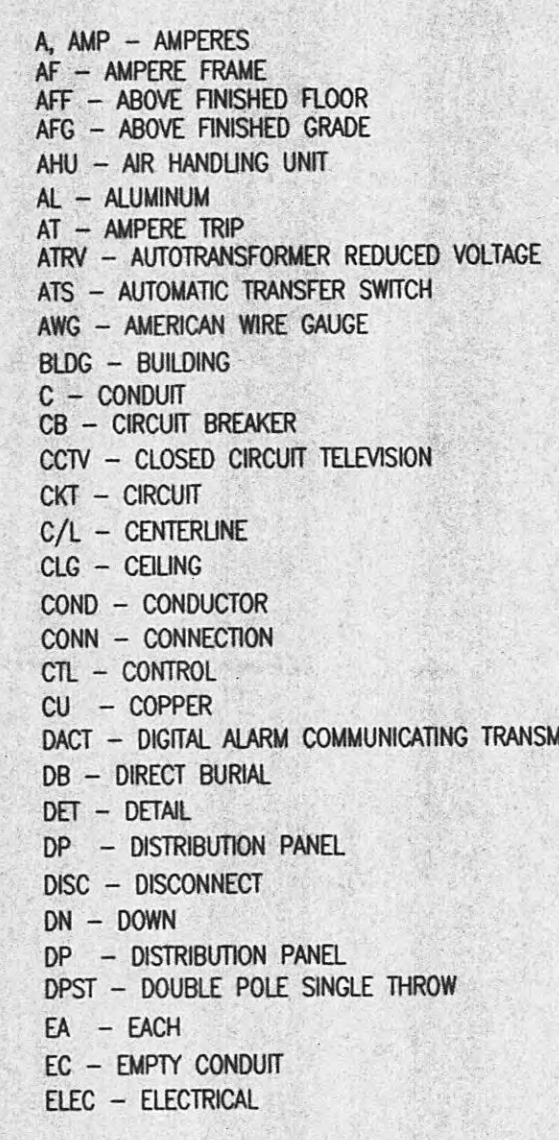
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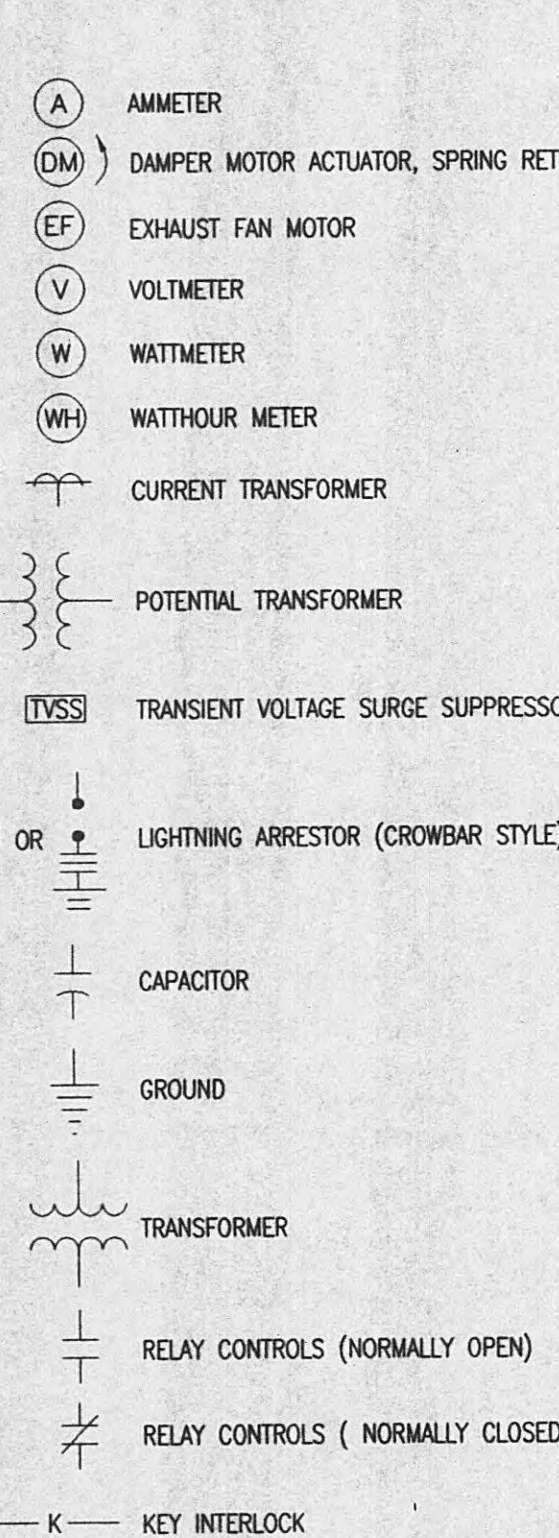
WALLPACK EXTERIOR LIGHT FIXTURE



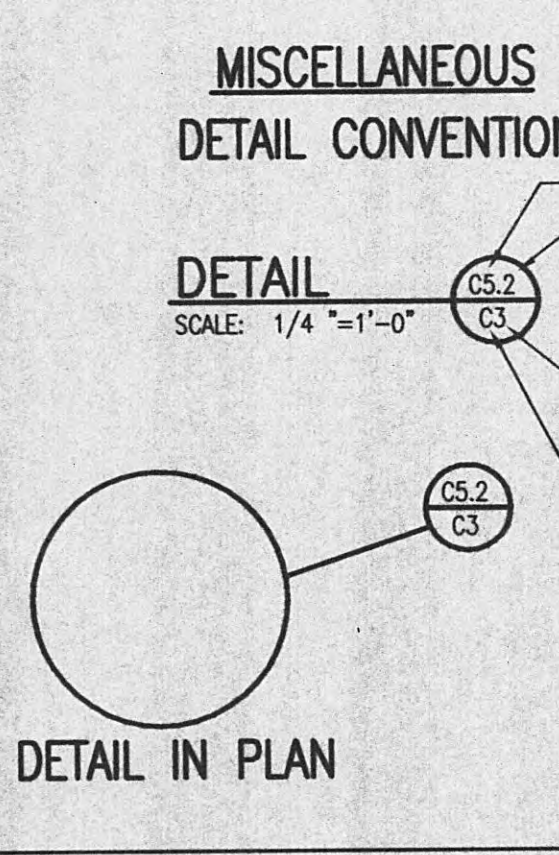
• LIST OF ABBREVIATIONS, ACRONYMS, AND SYMBOLS IS A STANDARD LIST. NOT ALL SYMBOLS ARE USED ON THIS PROJECT.

• SYMBOLS USED BUT NOT LISTED HERE SHALL BE DEFINED ELSEWHERE IN THE BID DOCUMENTS. IF NOT, CONTACT THE ENGINEER FOR CLARIFICATION PRIOR TO BID OPENING.

ABBREVIATIONS

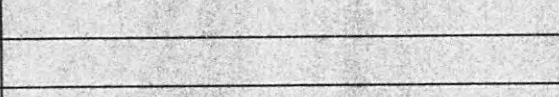


CONTROLS

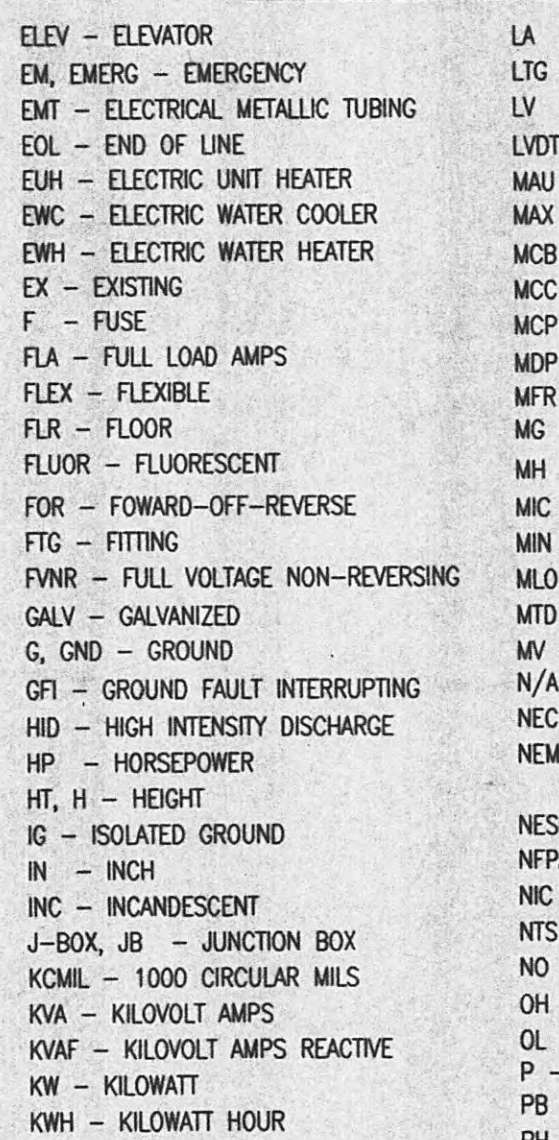
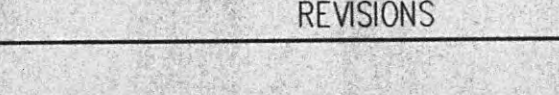


MISCELLANEOUS

DETAIL CONVENTIONS



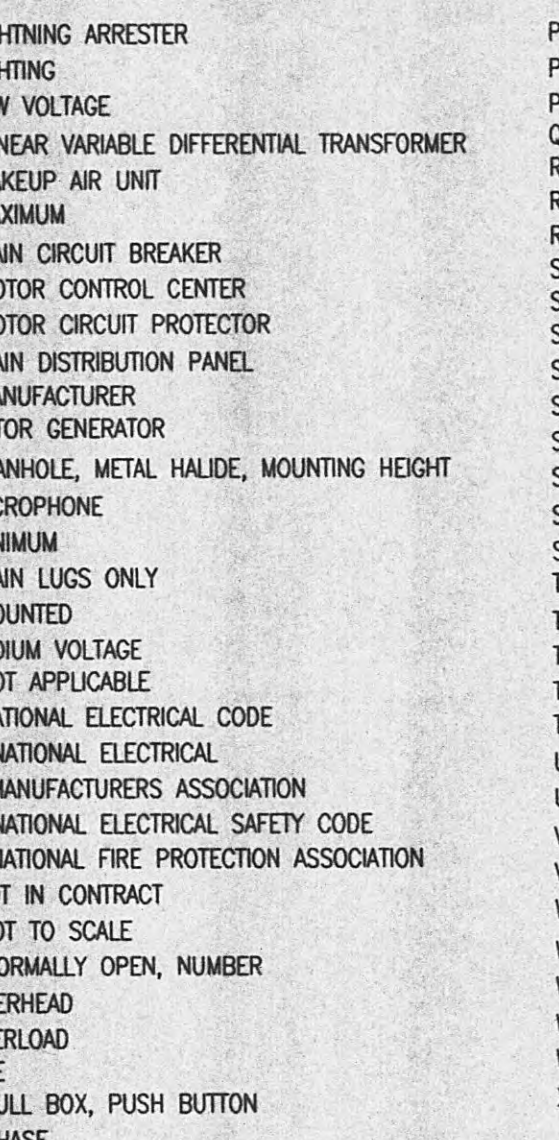
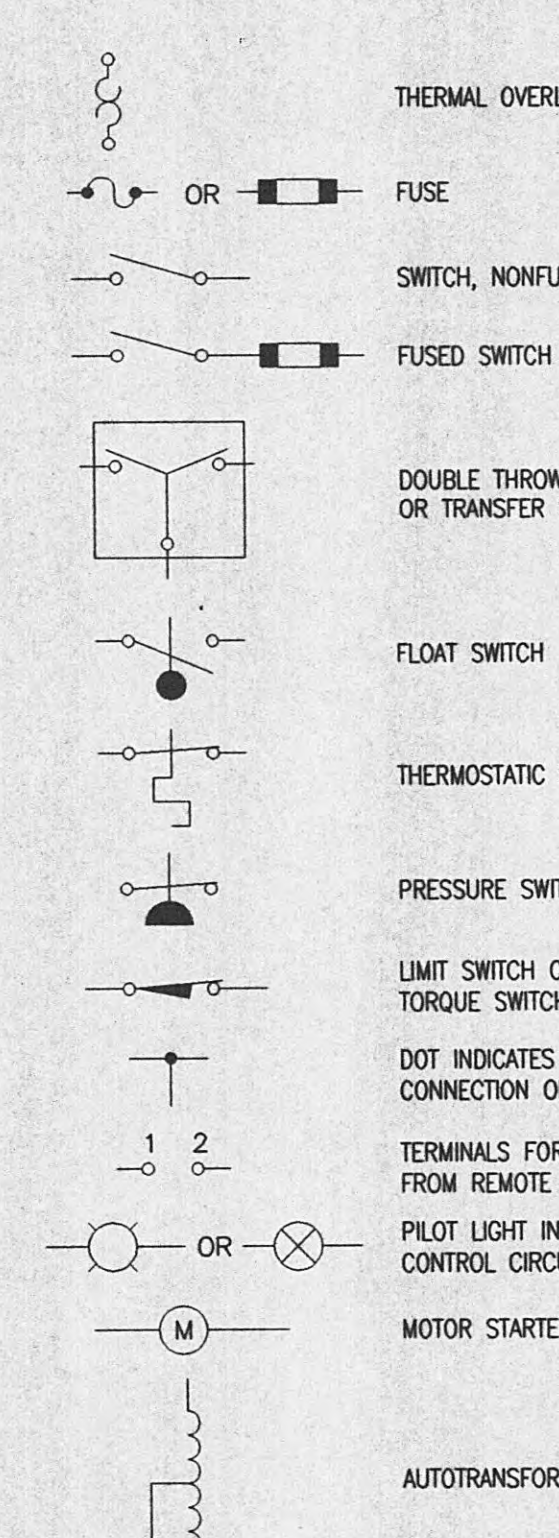
DETAIL IN PLAN



• LIST OF ABBREVIATIONS, ACRONYMS, AND SYMBOLS IS A STANDARD LIST. NOT ALL SYMBOLS ARE USED ON THIS PROJECT.

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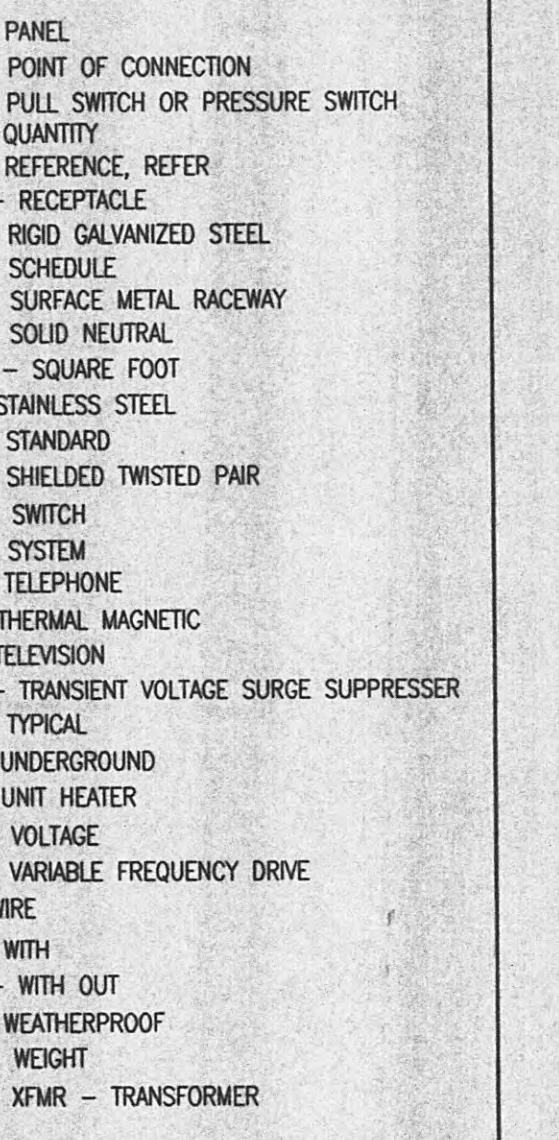
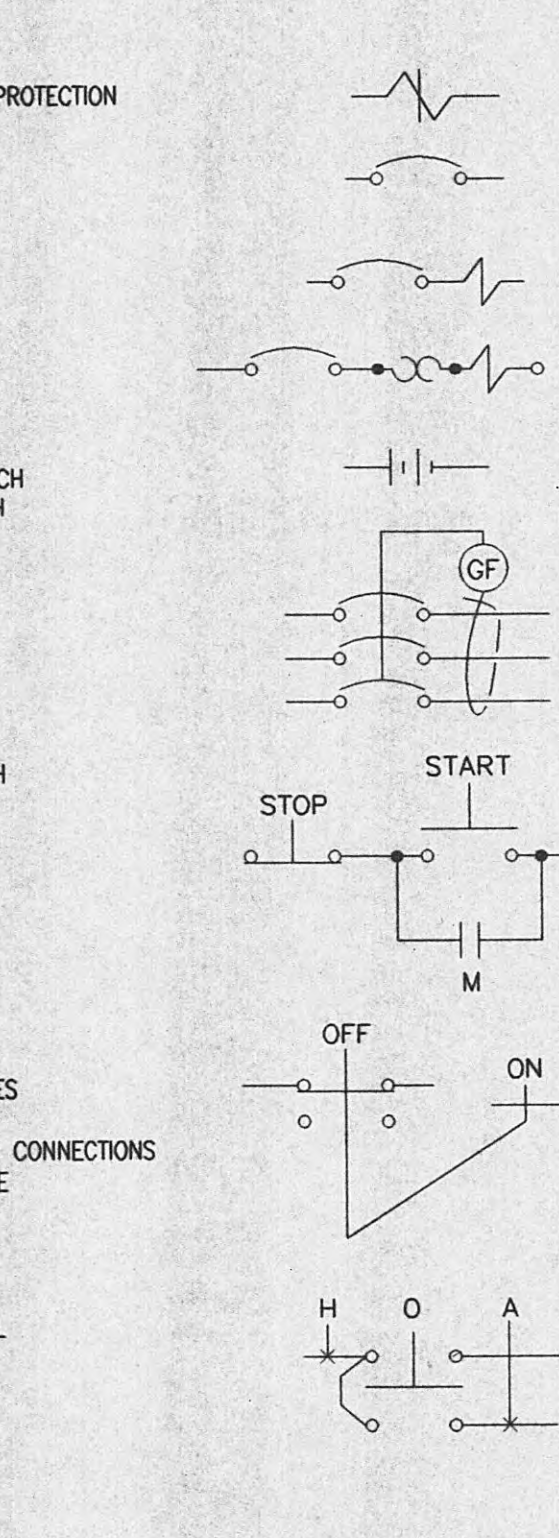
ABBREVIATIONS



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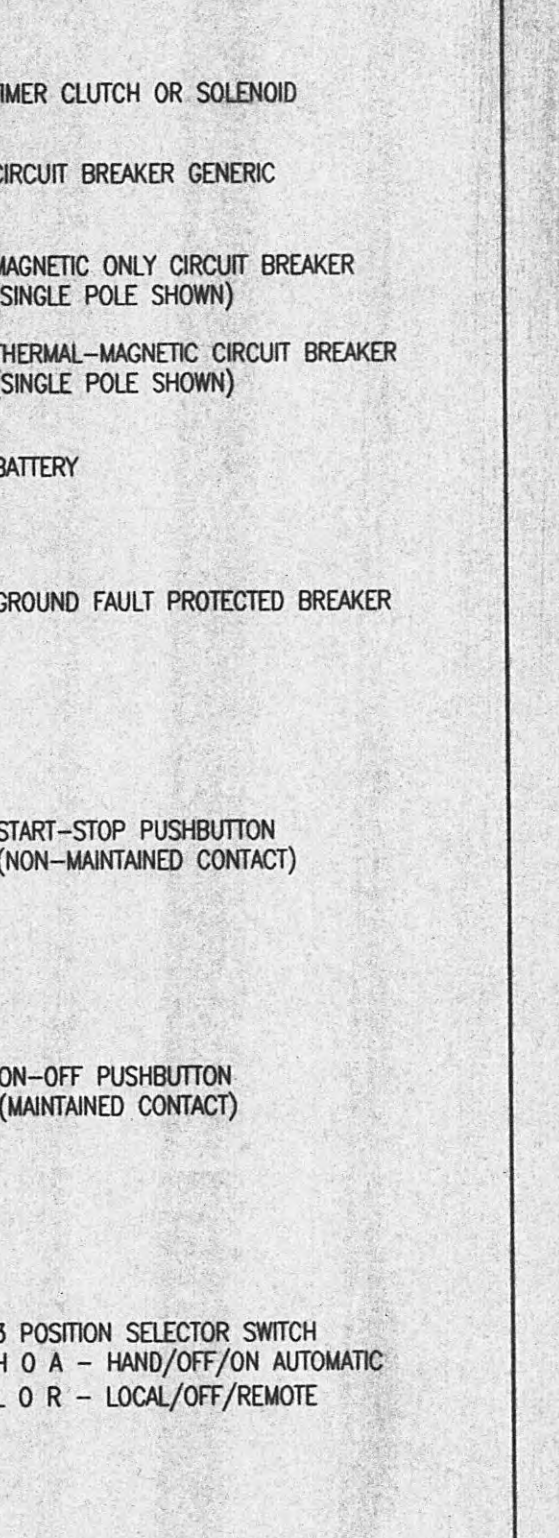
ABBREVIATIONS

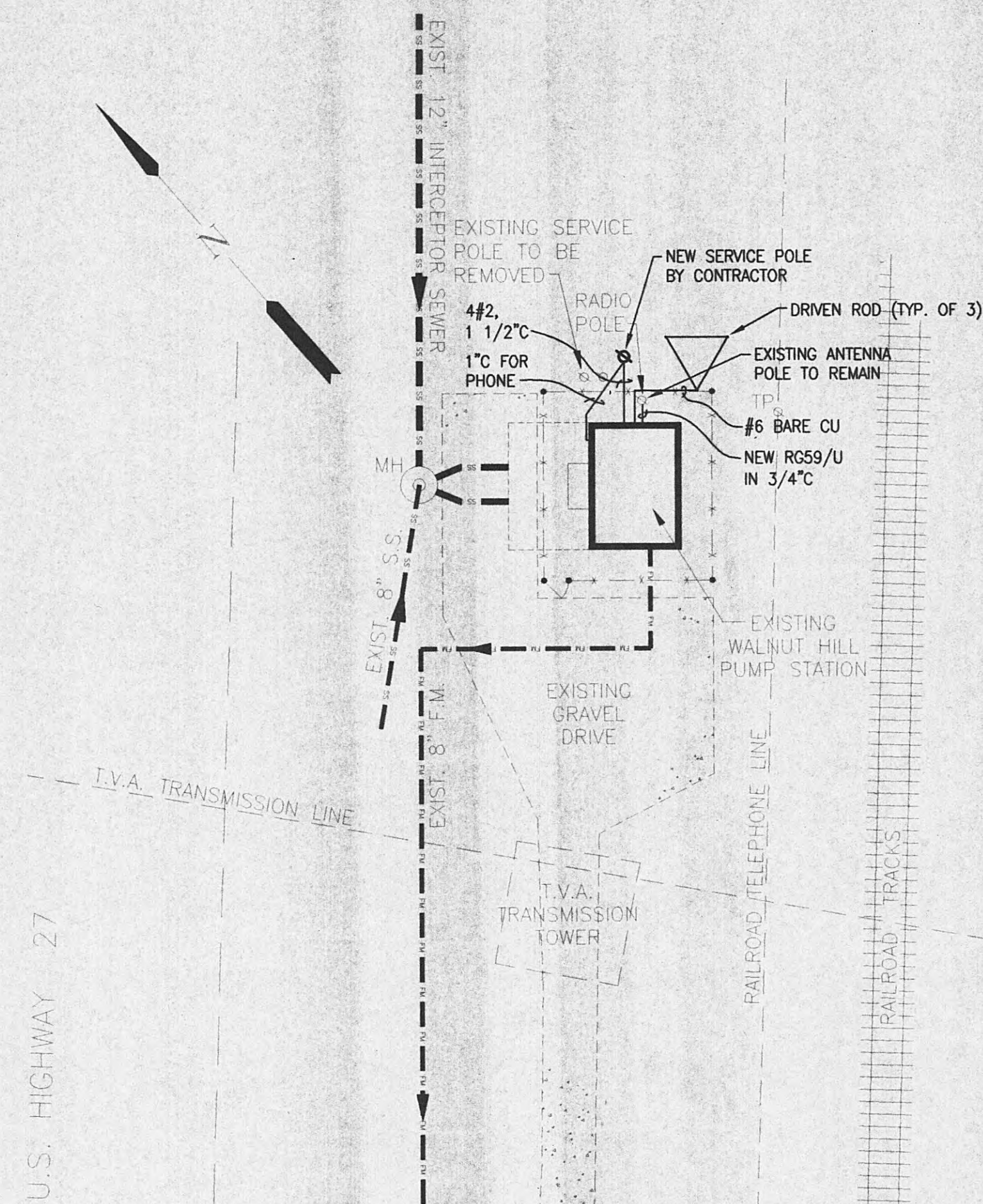


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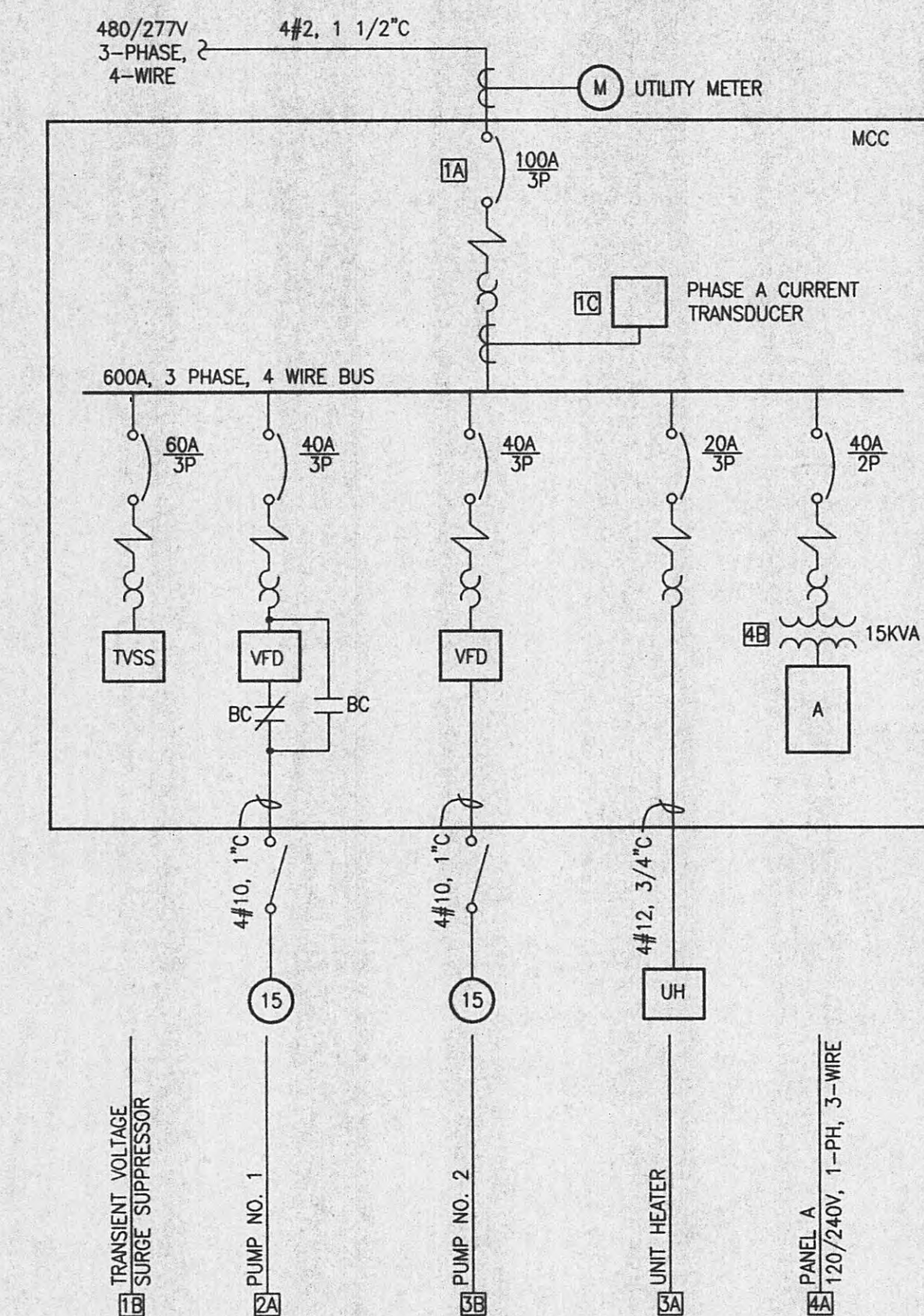
ABBREVIATIONS



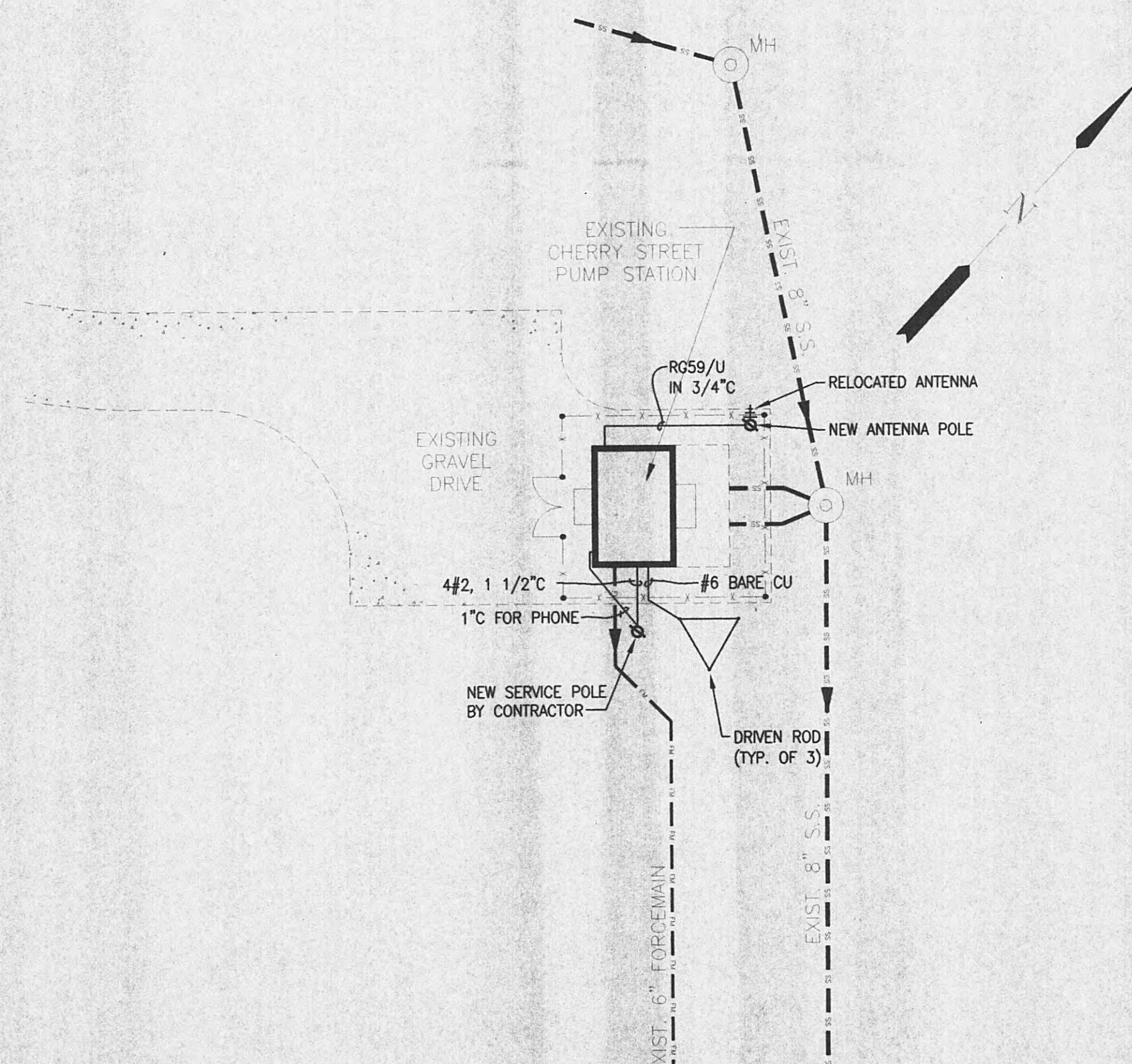


ELECTRICAL SITE PLAN – WALNUT HILL PUMP STATION

SCALE: 1" = 20'-0"

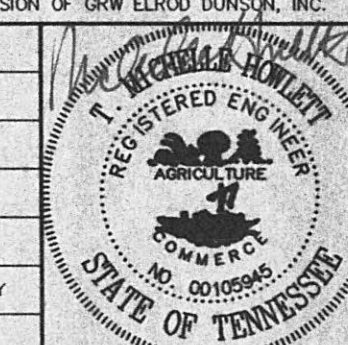


ONE LINE DIAGRAM
CHERRY STREET & WALNUT HILL PUMP STATIONS
NOT TO SCALE

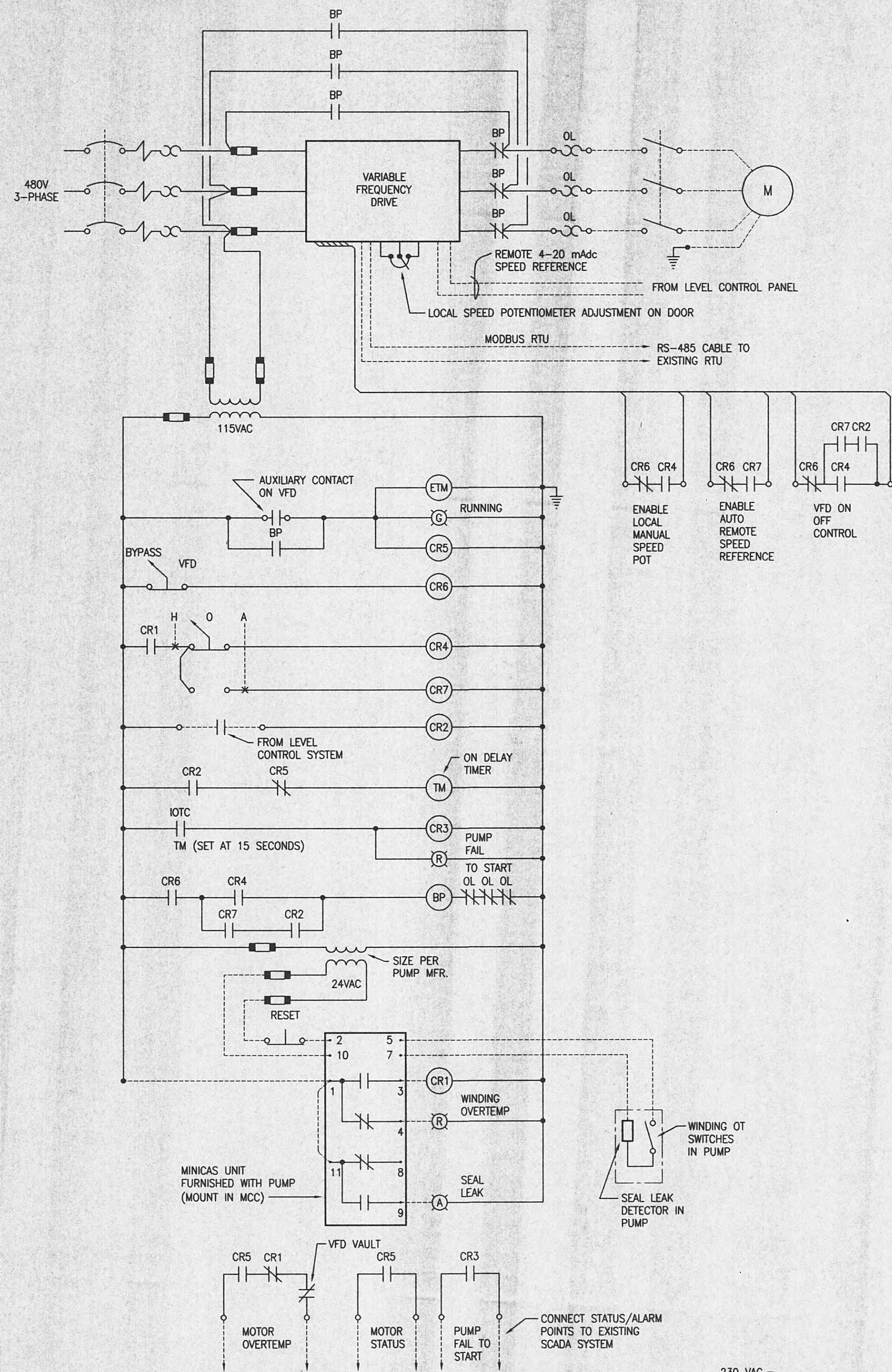


ELECTRICAL SITE PLAN – CHERRY STREET PUMP STATION

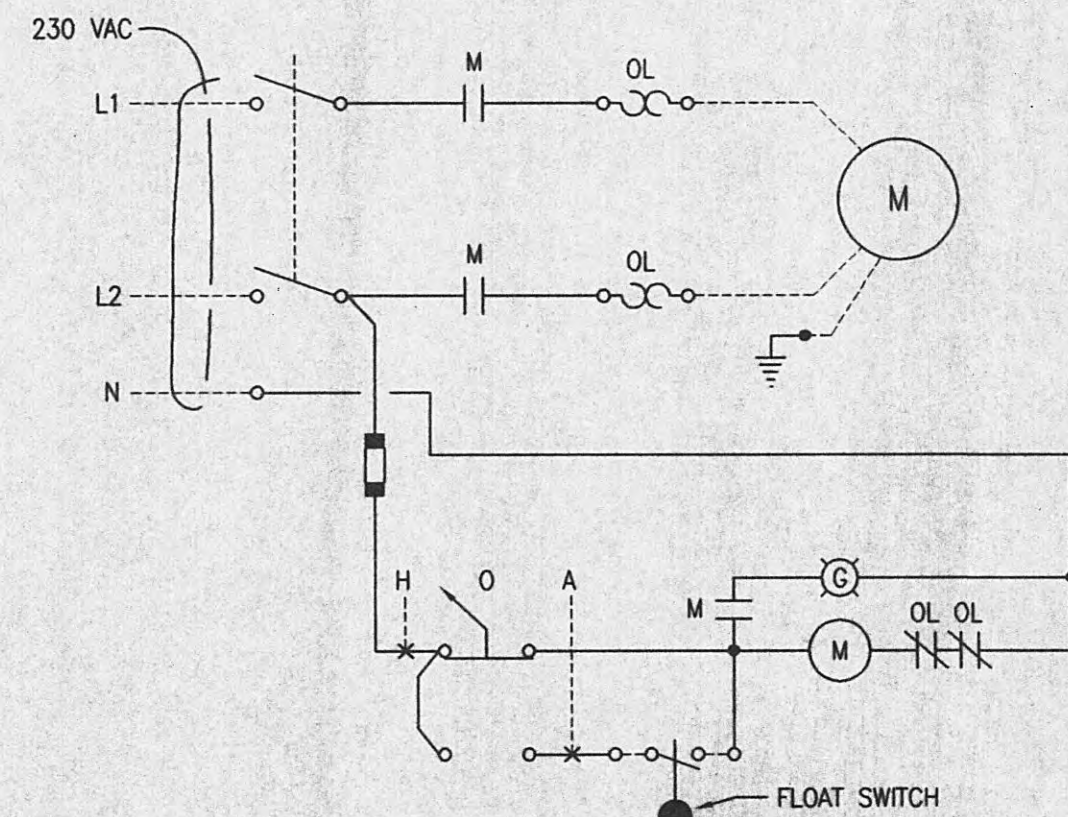
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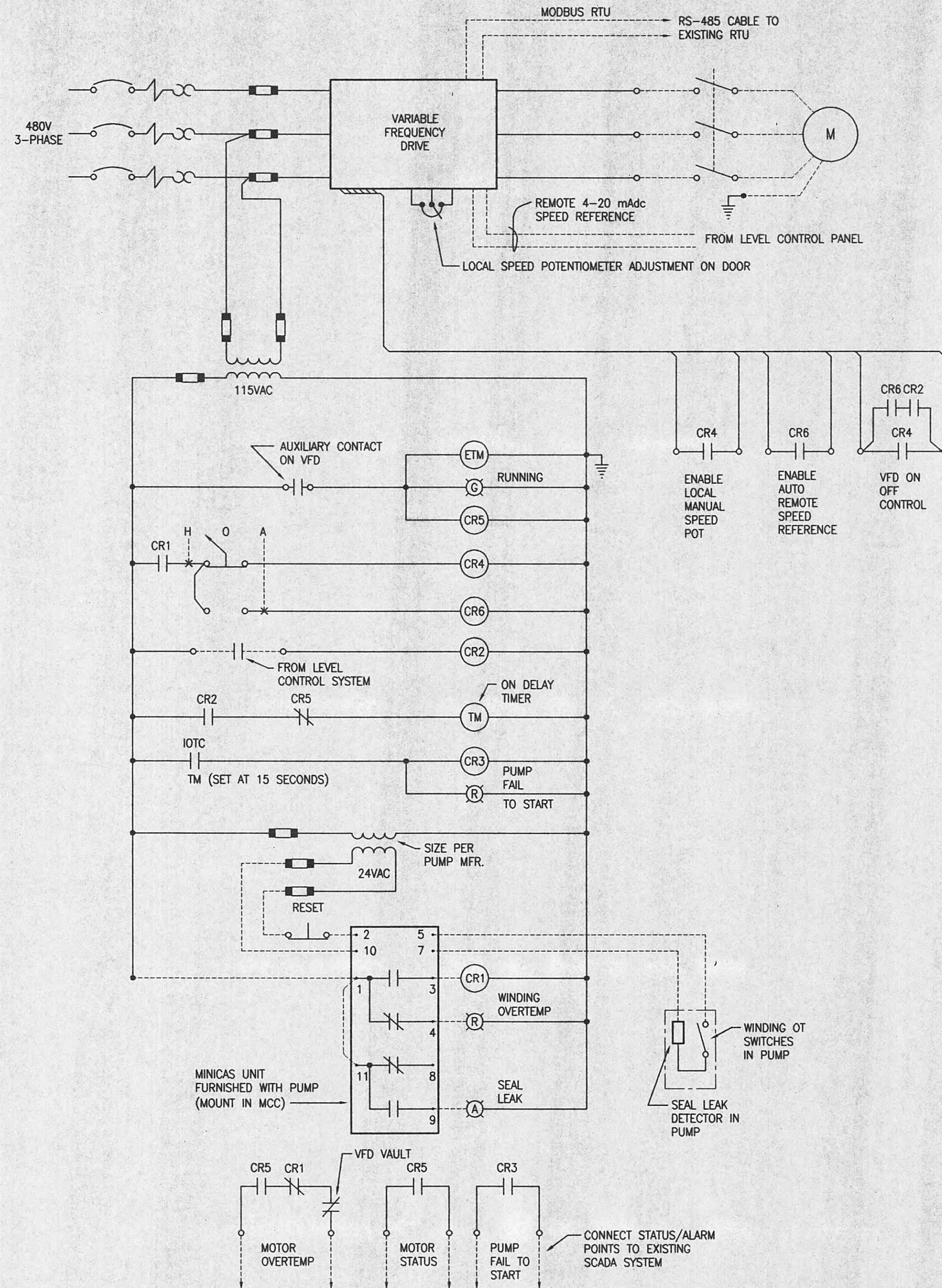
GRW PROJECT NO. 7716-01		CONTRACT S05-01	
HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE CHERRY ST. & WALNUT HILL PUMP STATION ELECTRICAL SITE PLAN, ONE LINE DIAGRAMS			
 GRW Elrod Dunson, Inc. Engineers, Architects, Planners LEXINGTON LOUISVILLE INDIANAPOLIS NASHVILLE KNOXVILLE		DESIGNED:	DATE:
		TMH	JANUARY, 2005
		DRAWN:	SCALE:
		JMG	AS NOTED
		REVIEWED:	SHEET NO.
		TMH	
		APPROVED:	
		TMH	E-2



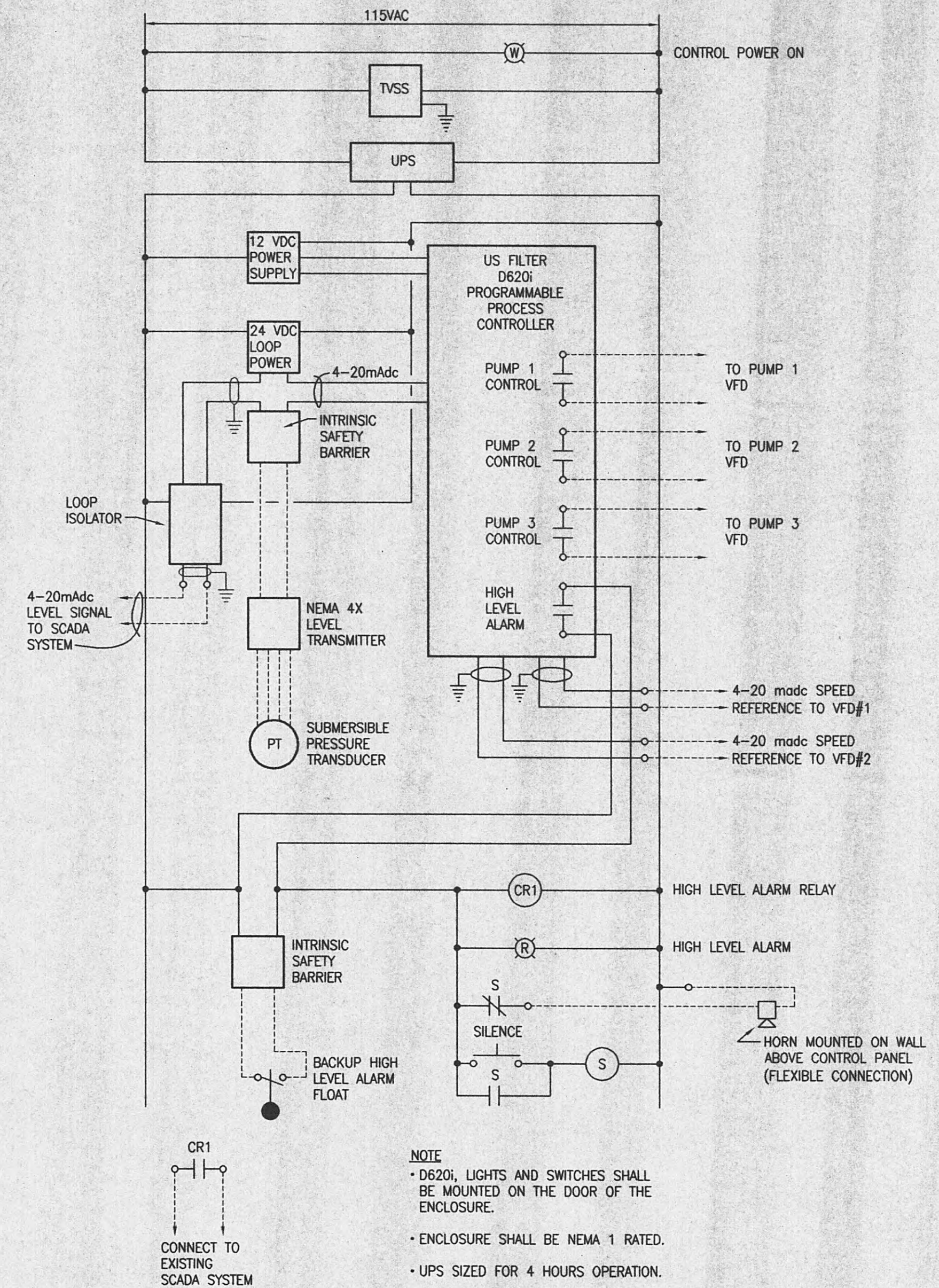
CONTROL CIRCUIT NO. 1
- WASTEWATER PUMP NO. 1 (1 UNIT REQUIRED IN MCC)



CONTROL CIRCUIT NO. 4
- SUMP PUMP (1 UNIT REQUIRED, NEMA 4X ENCLOSED)

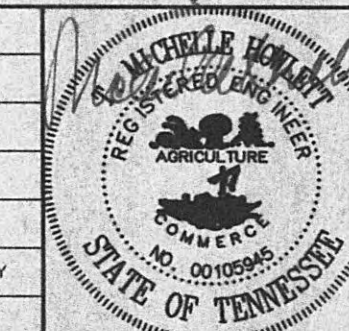


CONTROL CIRCUIT NO. 2
- WASTEWATER PUMP NO. 2 (1 UNIT REQUIRED IN MCC)



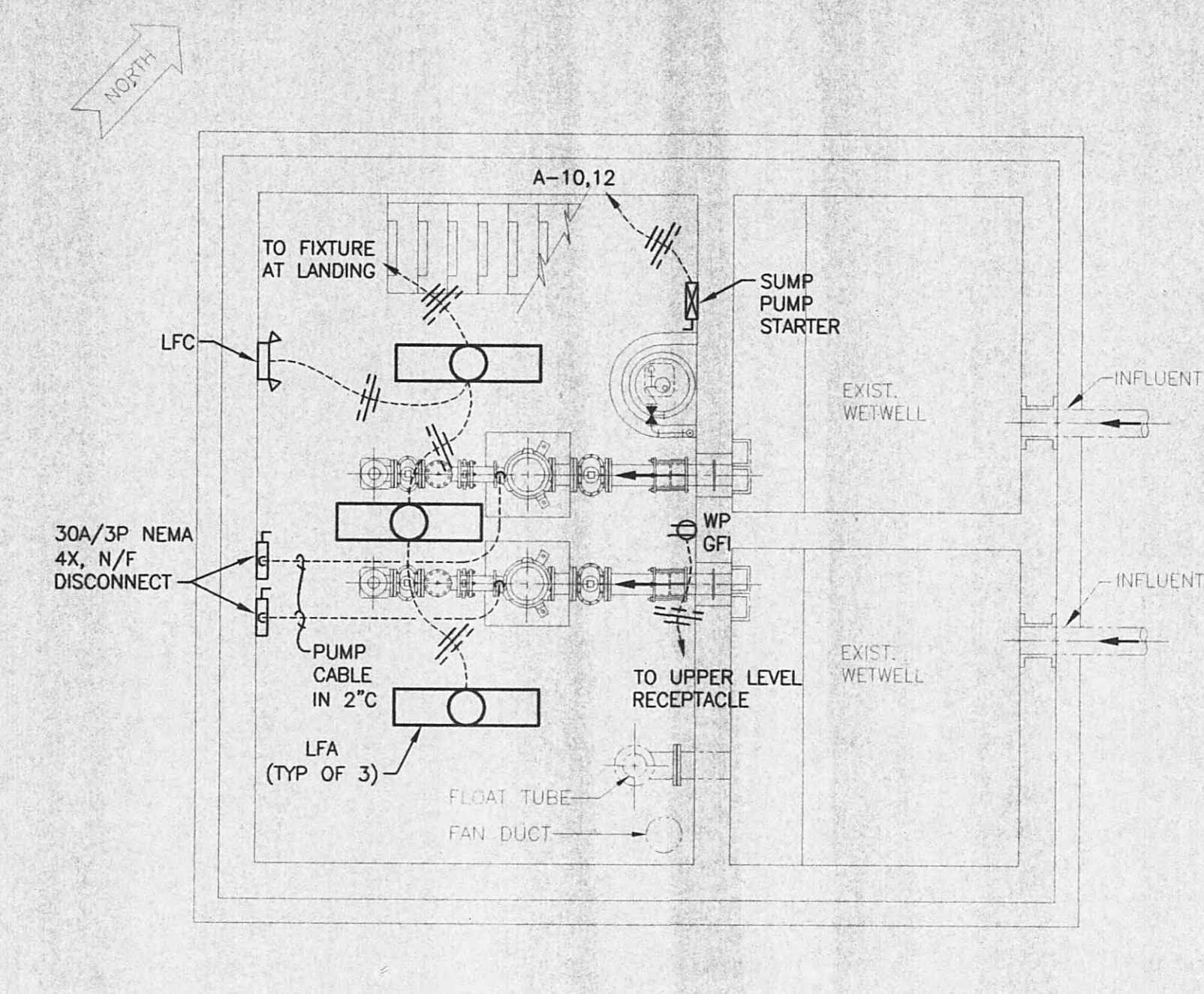
CONTROL CIRCUIT NO. 3
- LEVEL CONTROL PANEL (1 REQUIRED NEMA 1 ENCLOSED)

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NO.	DESCRIPTION	DATE	BY
REVISIONS			

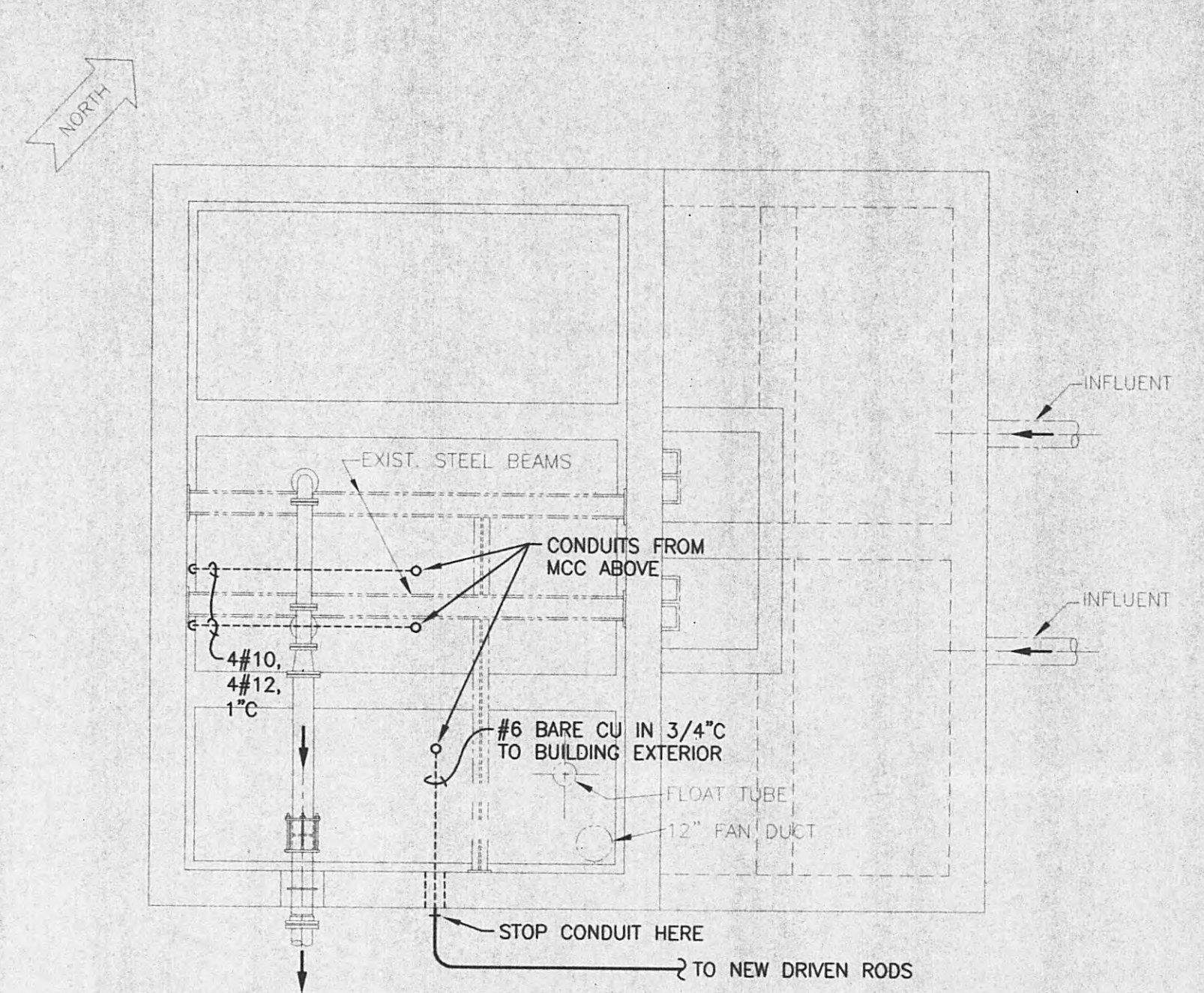


GRW PROJECT NO. 7716-01		CONTRACT S05-01	
HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE CHERRY ST. & WALNUT HILL PUMP STATION CONTROL CIRCUITS			
 GRW Elrod Dunson, Inc. Engineers, Architects, Planners LEXINGTON LOUISVILLE INDIANAPOLIS NASHVILLE KNOXVILLE	DESIGNED: TMH	DATE: JANUARY, 2005	E-3
	DRAWN: JMG	SCALE: AS NOTED	
	REVIEWED: TMH	SHEET NO.	
	APPROVED: TMH		

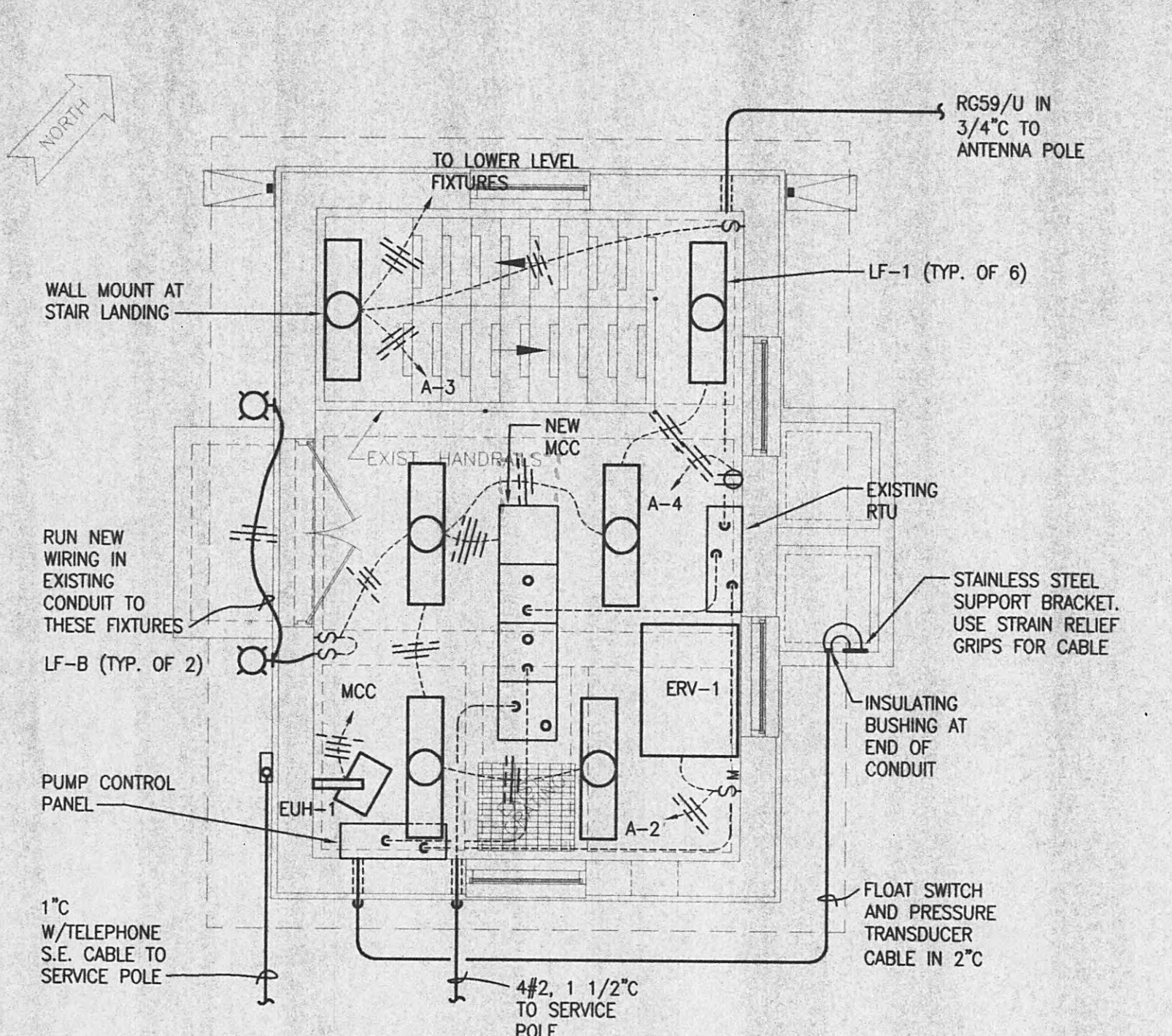
3/11/05



NEW WORK FLOOR PLAN - PUMP LEVEL
SCALE: 1/4" = 1'-0"



NEW WORK FLOOR PLAN - INTERMEDIATE LEVEL
SCALE: 1/4" = 1'-0"



NEW WORK FLOOR PLAN - ENTRANCE LEVEL
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

MOTOR CONTROL CENTERS SHALL BE ORIENTED SUCH THAT THE FRONT FACES THE ENTRANCE DOOR.

EXISTING PUMP MOTORS AND PADS SHALL BE COMPLETELY REMOVED TO ALLOW CLEAR WORKING SPACE IN FRONT OF MCC'S WITHOUT OBSTACLES.

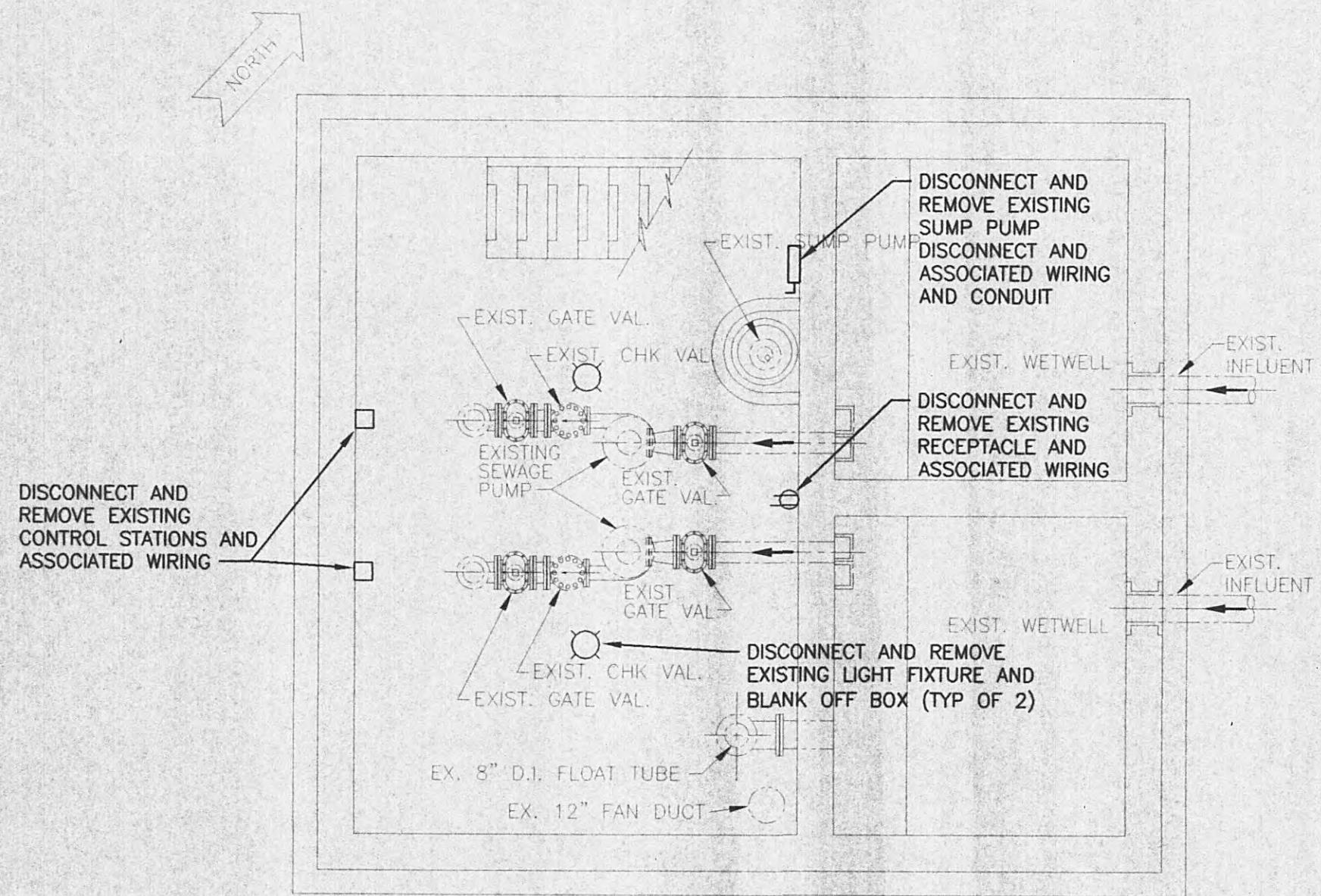
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THE WETWELL IS A CLASS I, DIVISION 1 GROUP D HAZARDOUS LOCATION. ALL EQUIPMENT AND WIRING SHALL BE FURNISHED AND INSTALLED ACCORDINGLY. SEALING FITTINGS ARE REQUIRED IN CONDUITS TO WETWELL.

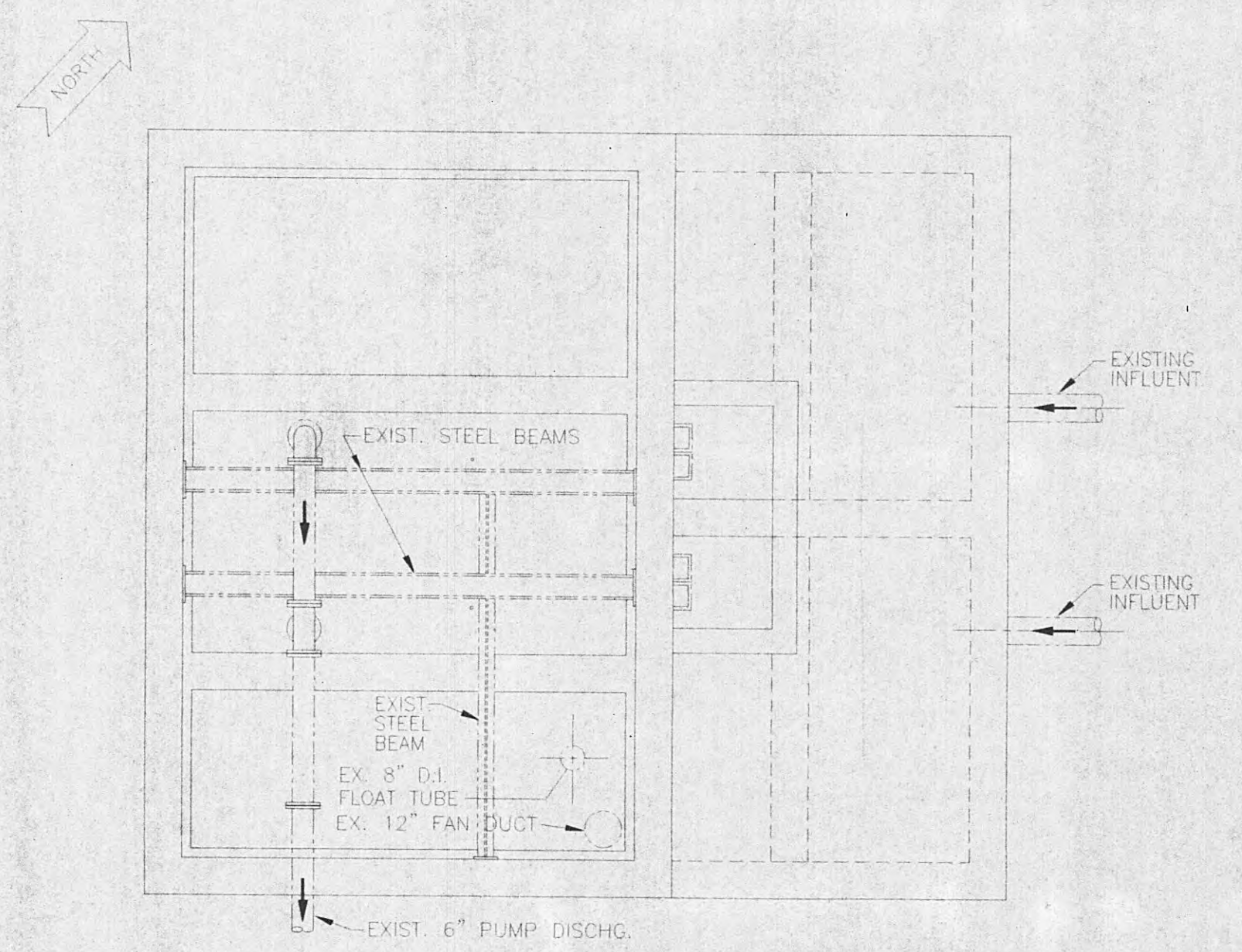
COORDINATE WITH HARRIMAN UTILITY BOARD FOR NEW ELECTRICAL SERVICE REQUIREMENTS.

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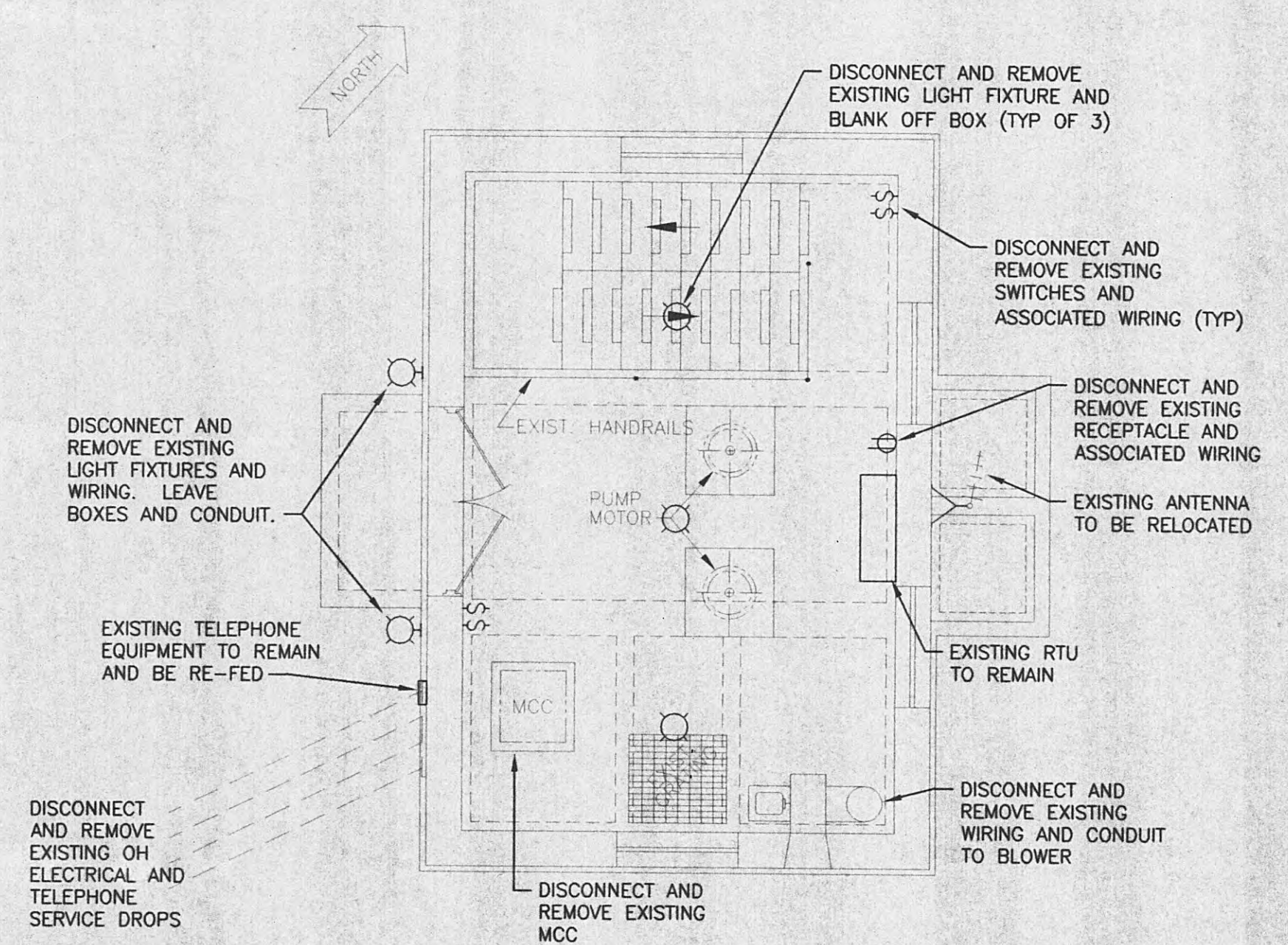
CONDUIT BETWEEN RTU, PUMP CONTROL PANEL IS SHOWN BUT NOT TAGGED. THE FOLLOWING ARE WIRING REQUIREMENTS BETWEEN EACH:
FROM MCC TO RTU - 17#12, 1 1/2\"/>



EXISTING FLOOR PLAN - PUMP LEVEL
SCALE: 1/4" = 1'-0"



EXISTING FLOOR PLAN - INTERMEDIATE LEVEL
SCALE: 1/4" = 1'-0"



DEMOLITION FLOOR PLAN - ENTRANCE LEVEL
SCALE: 1/4" = 1'-0"

FILE NAME: U:\3041-Nashville\41- Cherry St. & Walnut Hill PS Upgrade\Cadd\Working\3041-41-E4.dwg
Fri, 11 Mar 2005 - 10:59am

GRW PROJECT NO. 7716-01

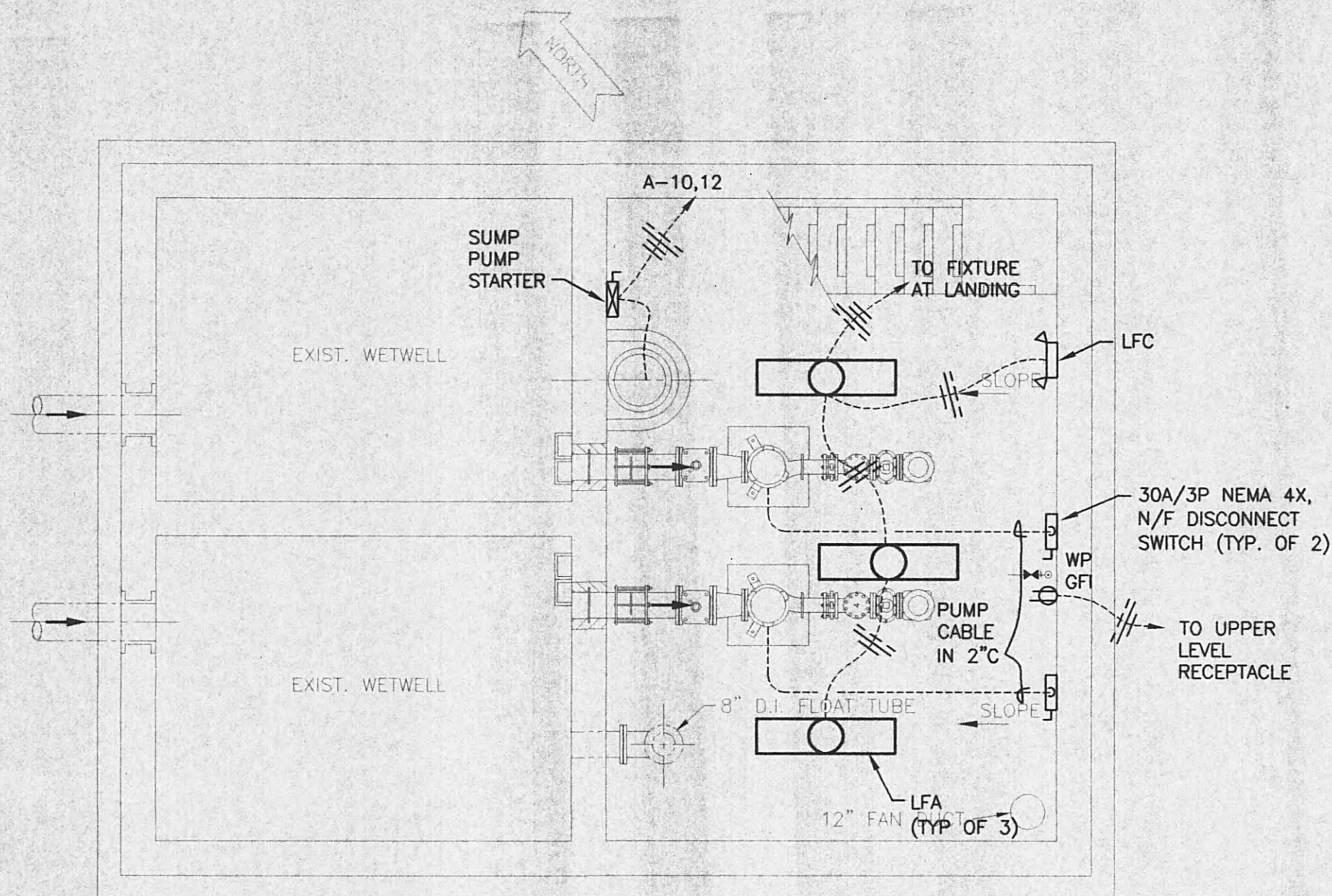
CONTRACT S05-01

HARRIMAN UTILITY BOARD
HARRIMAN, TENNESSEE
CHERRY ST. PUMP STATION
DEMO & NEW WORK PLAN VIEWS

DESIGNED: TMH DRAWN: JMG REVIEWED: TMH APPROVED: TMH	DATE: JANUARY, 2005 SCALE: AS NOTED SHEET NO. E-4
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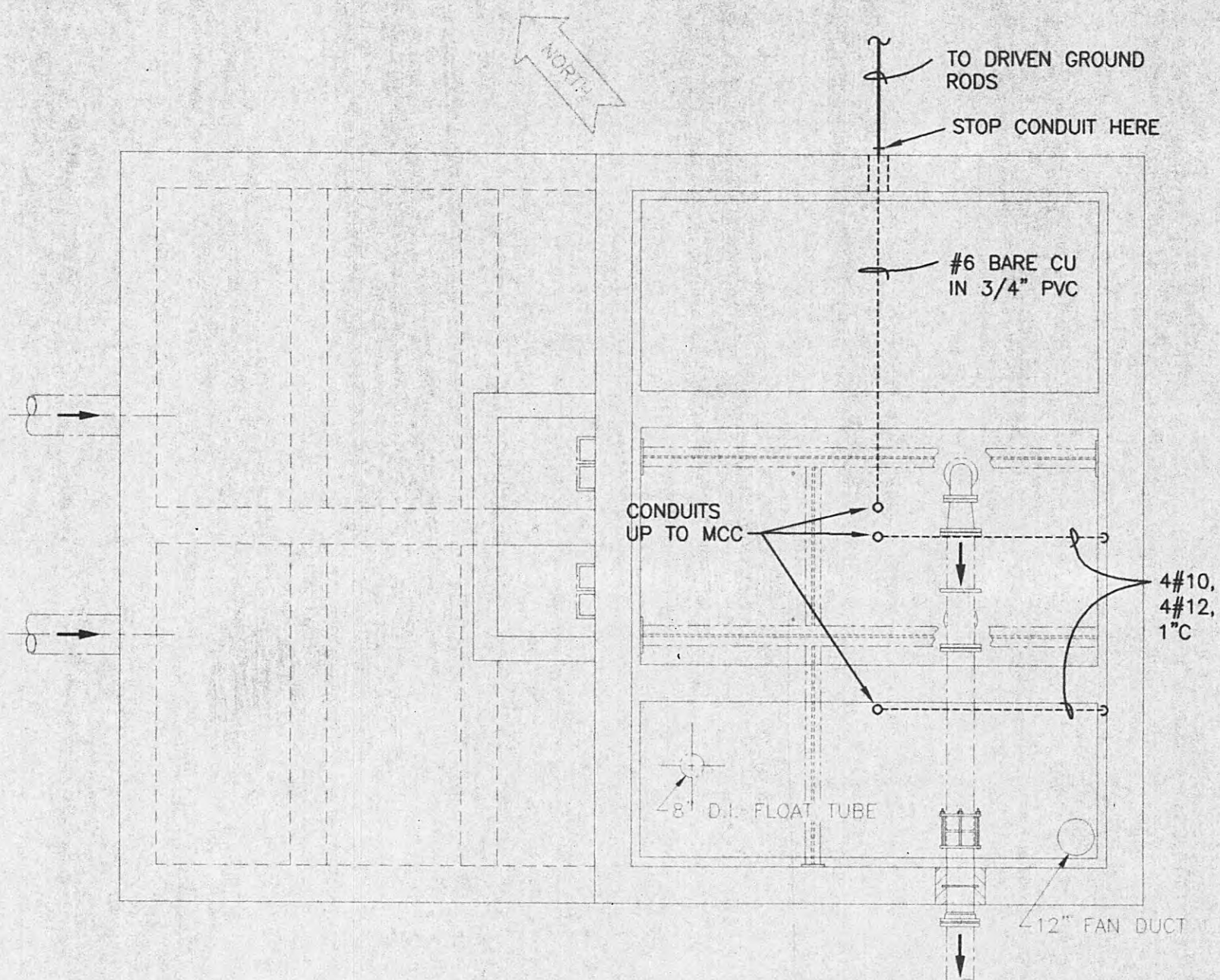
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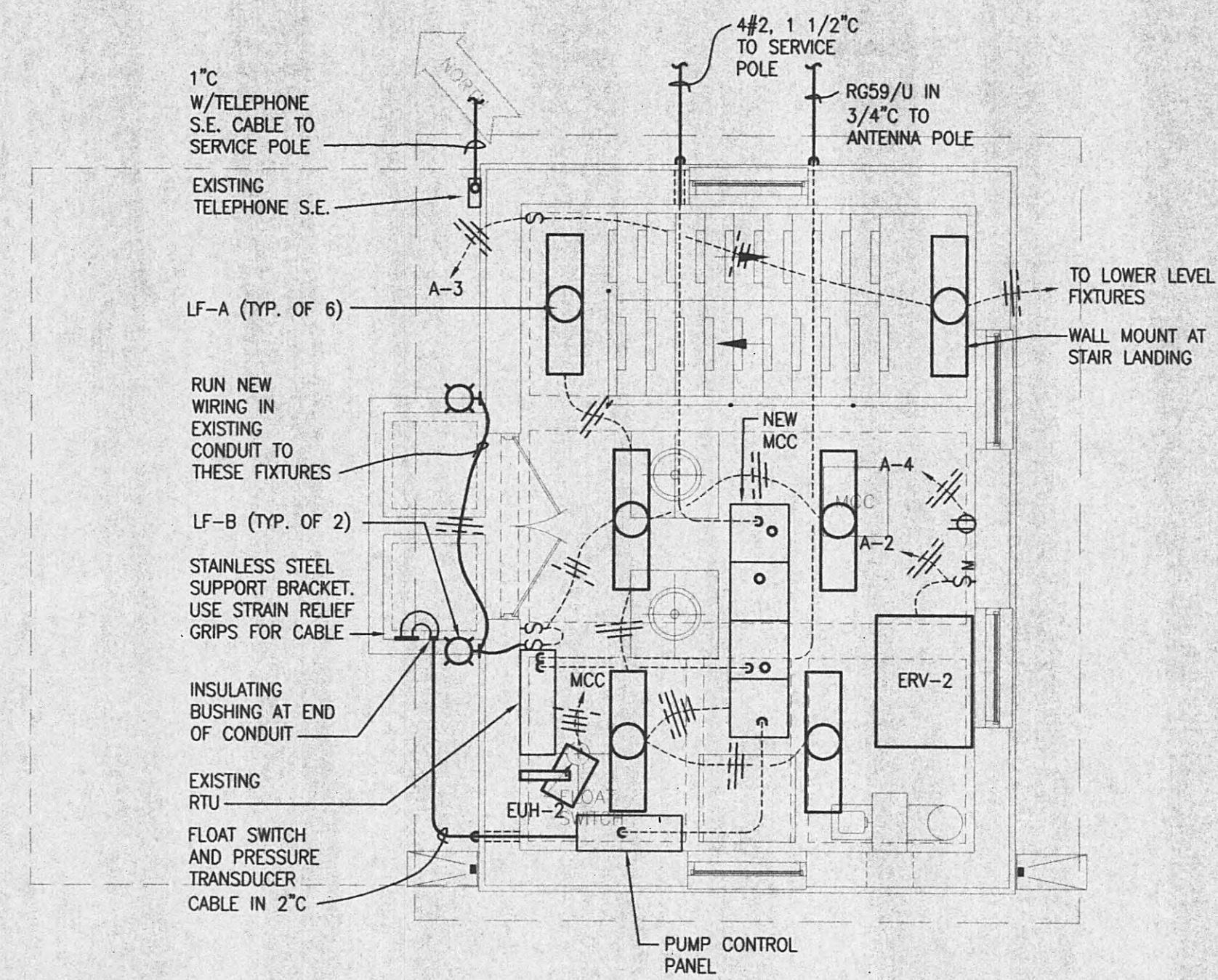
**NEW WORK FLOOR PLAN
— PUMP LEVEL**

SCALE: 1/4" = 1'-0"



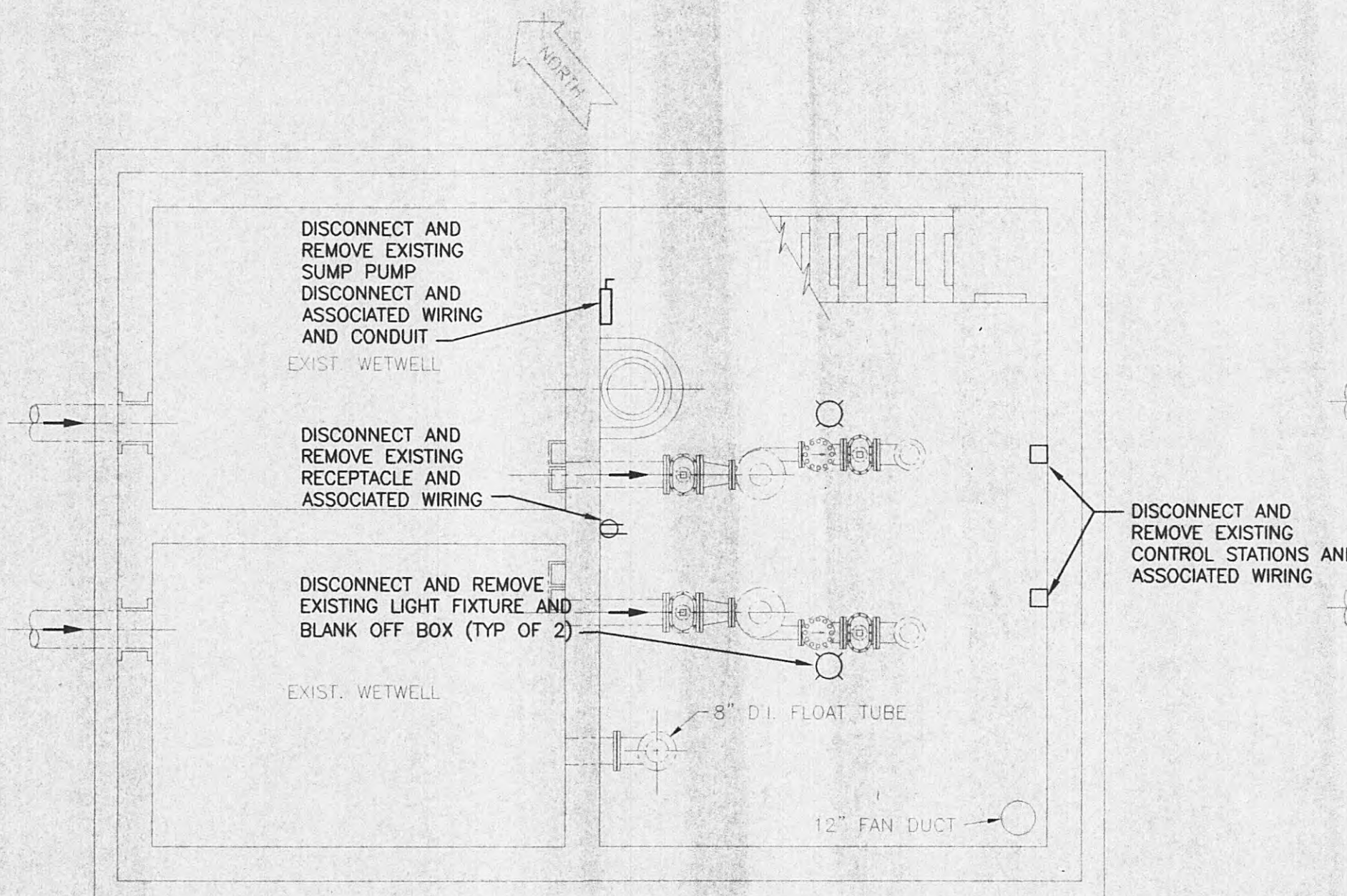
**NEW WORK FLOOR PLAN
— INTERMEDIATE LEVEL**

SCALE: 1/4" = 1'-0"



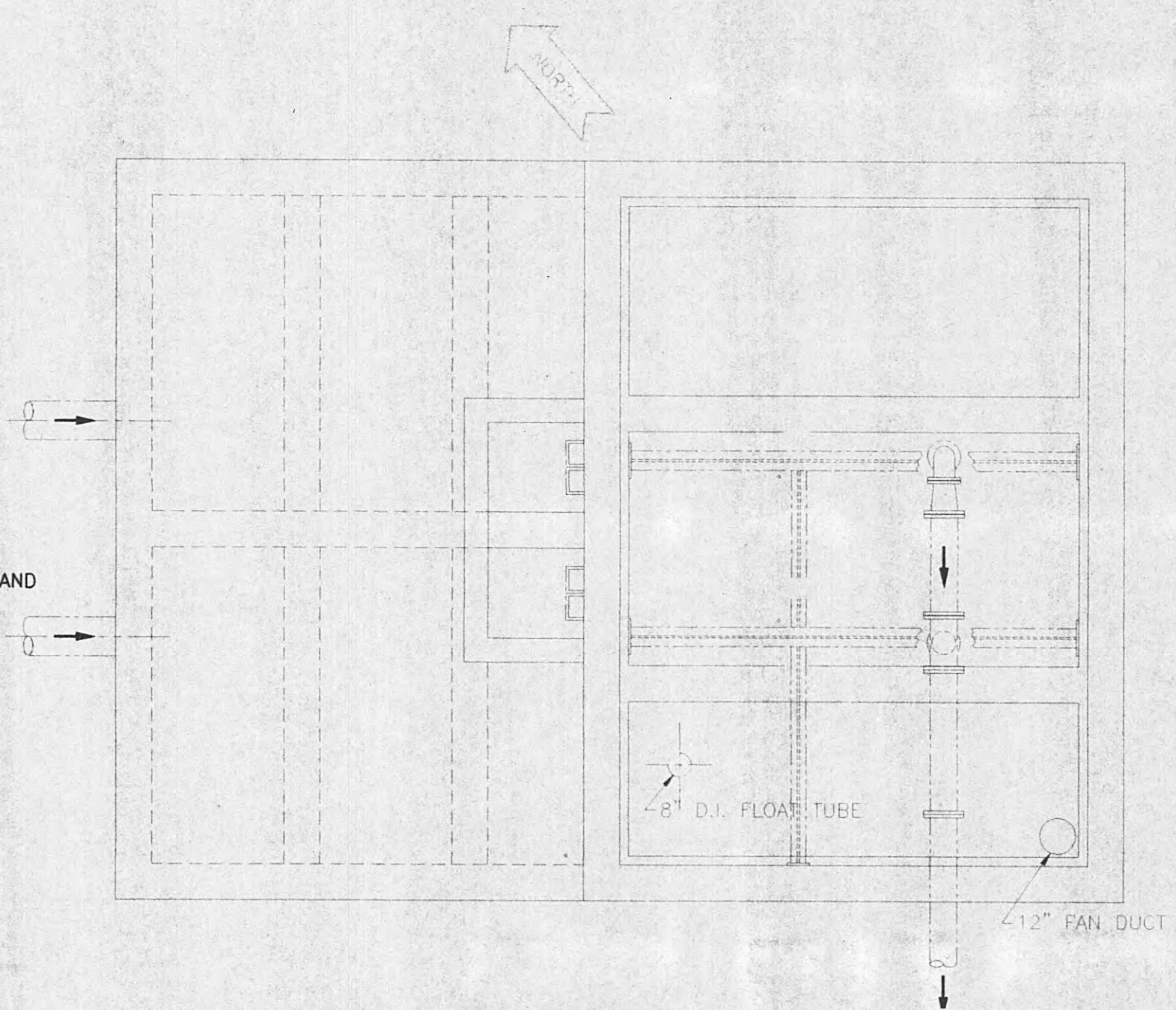
**NEW WORK FLOOR PLAN
— ENTRANCE LEVEL**

SCALE: 1/4" = 1'-0"



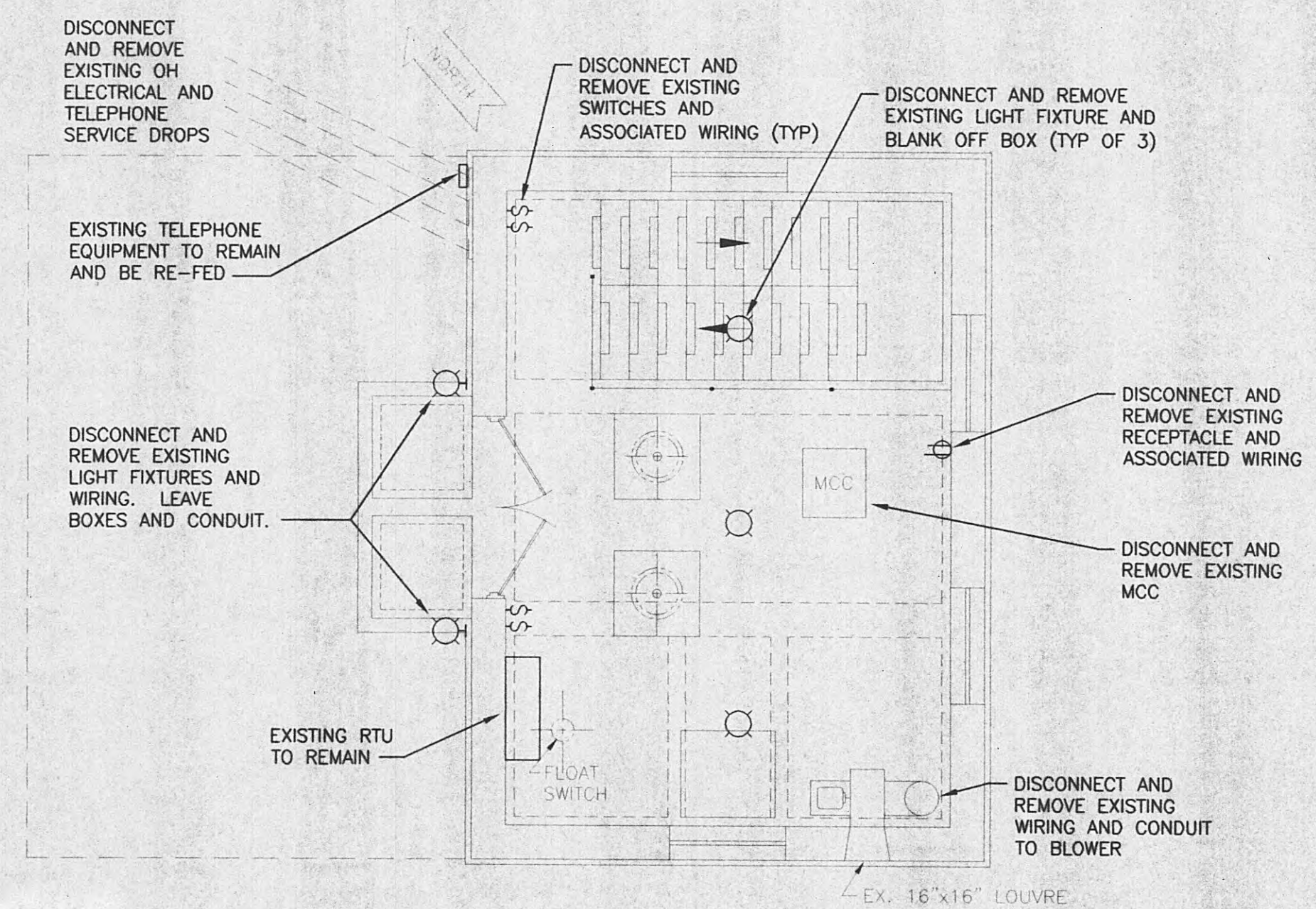
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— PUMP LEVEL**

SCALE: 1/4" = 1'-0"



**EXISTING FLOOR PLAN
— INTERMEDIATE LEVEL**

SCALE: 1/4" = 1'-0"



**EXISTING FLOOR PLAN
— ENTRANCE LEVEL**

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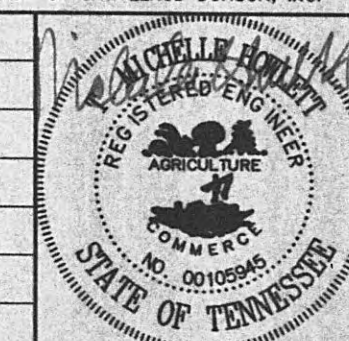
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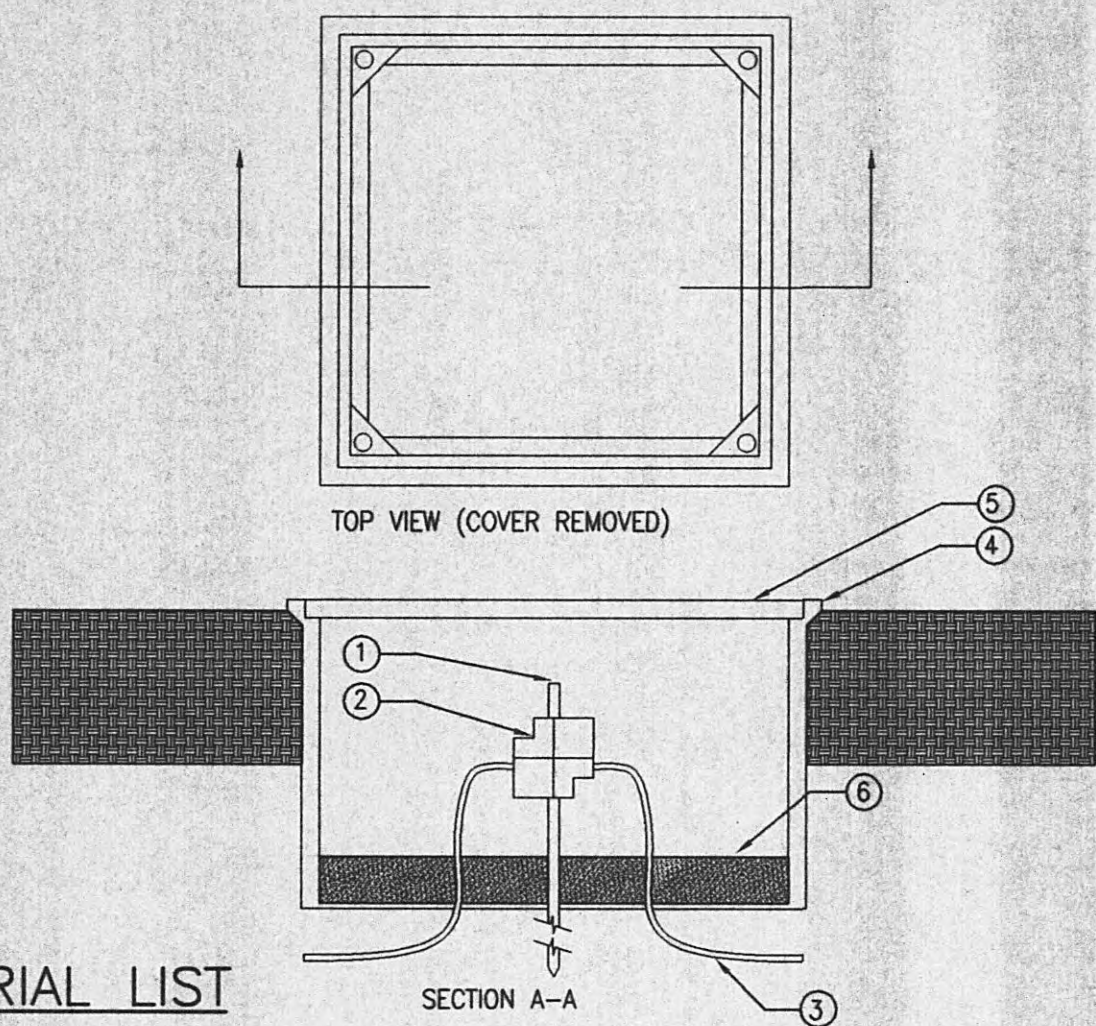
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FROM MCC TO RTU - 17#12, 1 1/2\"/>

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NO.	DESCRIPTION	DATE	BY
REVISIONS			



GRW PROJECT NO. 7716-01		CONTRACT S05-01	
HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE WALNUT HILL PUMP STATION DEMO & NEW WORK PLAN VIEWS			
DESIGNED:	DATE:	DESIGNED:	DATE:
TMH	JANUARY, 2005	TMH	JANUARY, 2005
DRAWN:	SCALE:	DRAWN:	SCALE:
JMG	AS NOTED	JMG	AS NOTED
REVIEWED:	SHEET NO.	REVIEWED:	SHEET NO.
TMH	E-5	TMH	E-5
 GRW Elrod Dunson, Inc. Engineers, Architects, Planners LEXINGTON LOUISVILLE INDIANAPOLIS NASHVILLE KNOXVILLE			

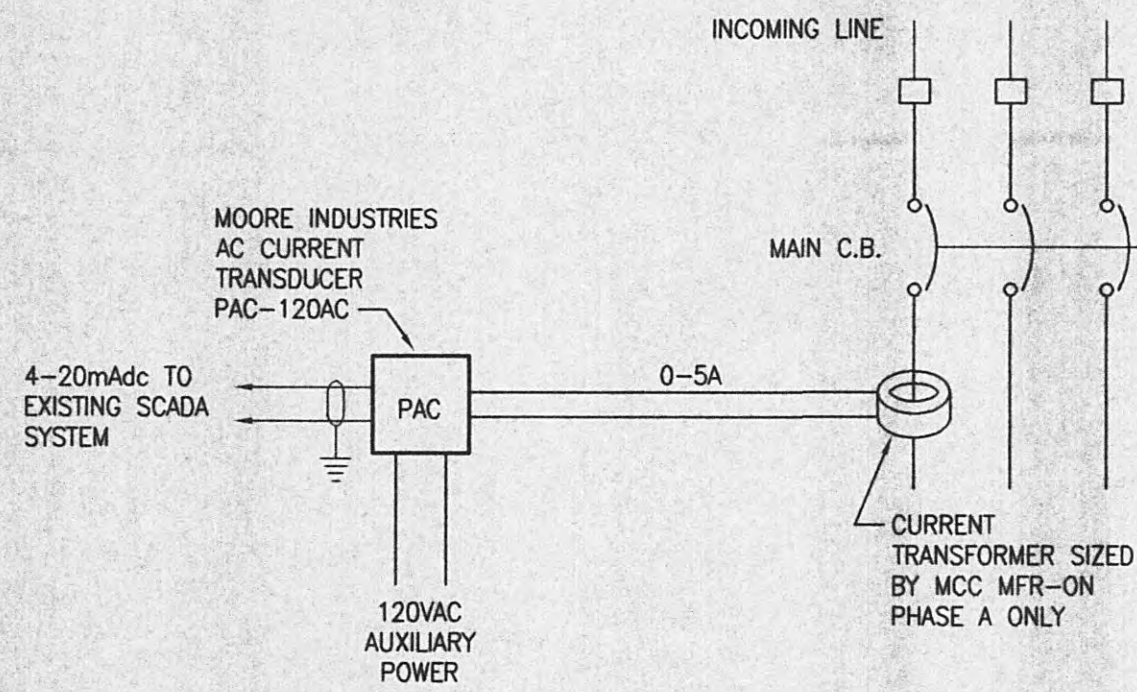


MATERIAL LIST

- ① GROUND ROD
- ② EXOTHERMIC WELD
- ③ GROUNDING CONDUCTOR #1/0 COPPER (VARIES)
- ④ POLYMER CONCRETE FIBERGLASS REINFORCED BOX
- ⑤ COVER FOR ABOVE BOX
- ⑥ GRAVEL OR CRUSHED STONE

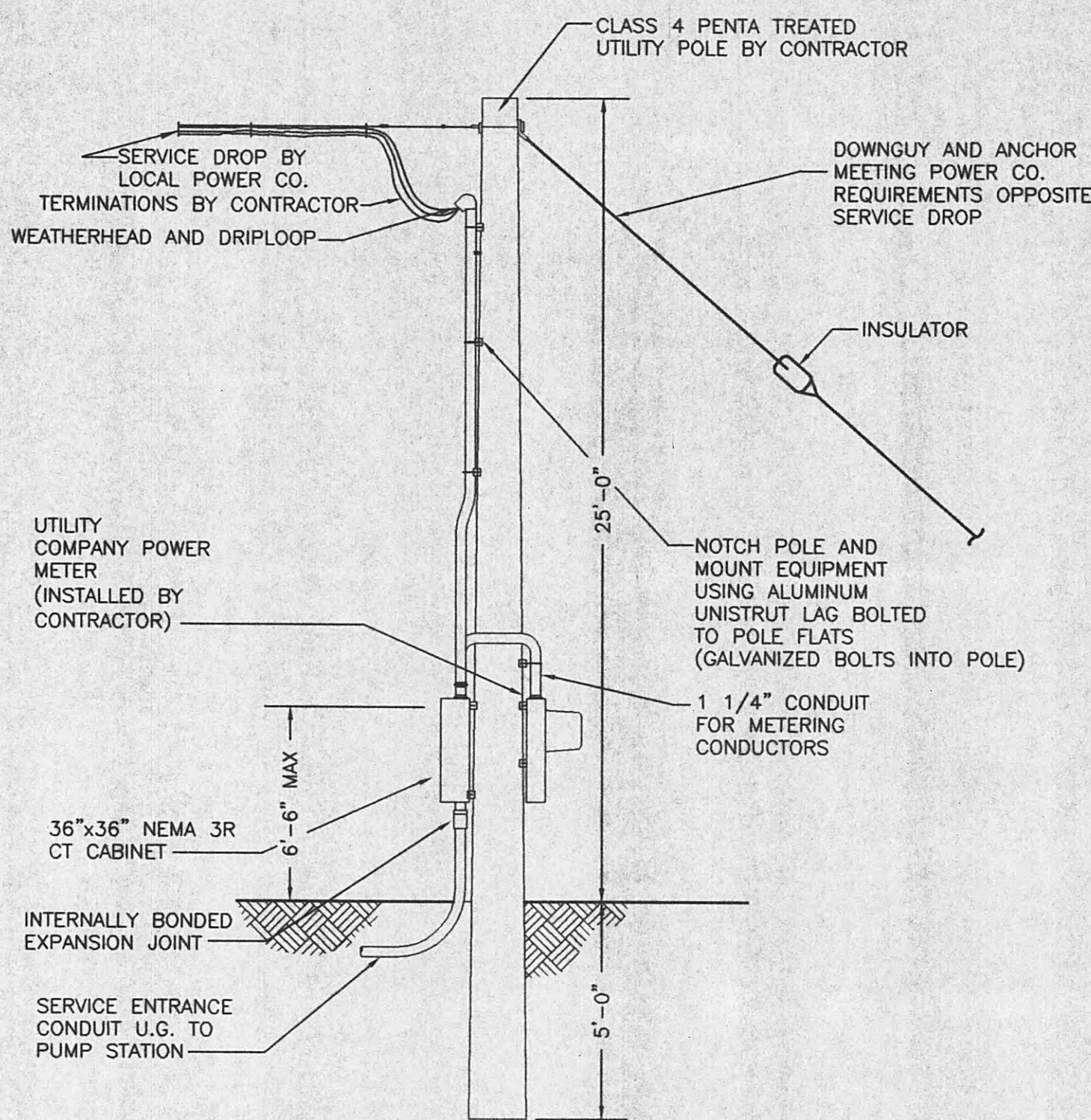
TYPICAL GROUND ROD TEST WELL INSTALLATION

NOT TO SCALE



PHASE A CURRENT MONITORING

NOT TO SCALE



TYPICAL SERVICE POLE DETAIL (CT METERING)

NOT TO SCALE

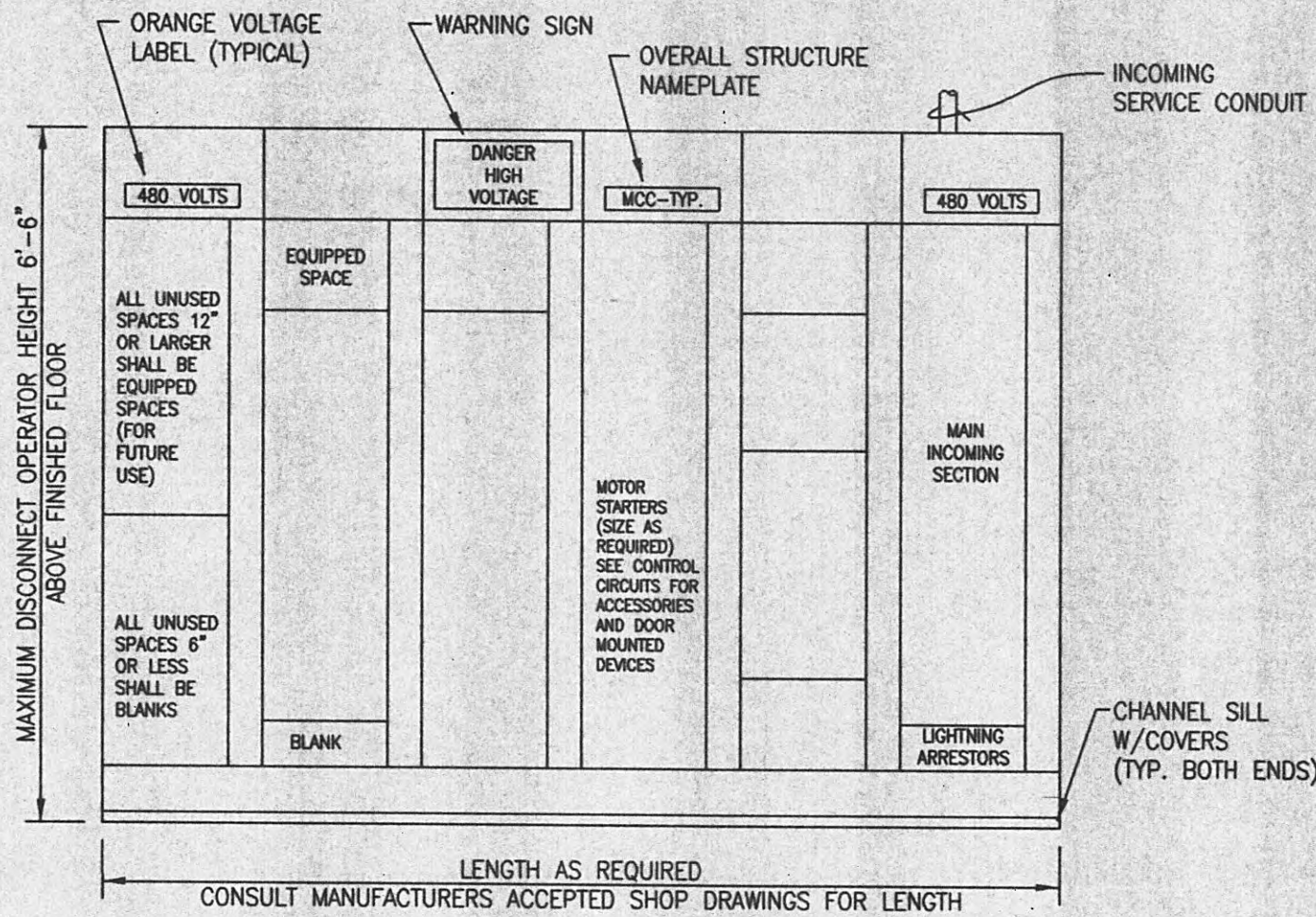
PANEL SCHEDULE	A
LOCATION	PUMP STATION
SURFACE, FLUSH, OR MCC	MCC
AIC RATING	10,000

VOLTAGE	120/240V, 1-PHASE, 3-WIRE
MAINS AMPACITY	100A
MAIN CB SIZE	80A
TOTAL SPACES	20

DESCRIPTION	VA	#P	BKR	FEEDER	NO	-A- VA	-B- VA	NO.	FEEDER	BKR	#P	VA	DESCRIPTION
UPPER LIGHTING	500	1	20A	3#12	1	1328		2	3#12	20A	1	828	ERV-1
LOWER LIGHTING	400	1	20A	3#12	3		760	4	3#12	20A	1	360	RECEPTACLES
EXTERIOR LIGHTING	200	1	20A	3#12	5	1200		6	3#12	20A	1	1000	RTU
SPARE		1	20A		7		1000	8	3#12	20A	1	1000	PUMP CONTROL PANEL
SPARE		1	20A		9	588		10	4#12	20A	2	588	SUMP PUMP
					11		588	12				588	
					13	0		14					
					15		0	16					
					17	0		18					
					19		0	20					
TOTAL VOLT-AMPERES PER PHASE						3116	2348						
TOTAL AMPERES PER PHASE						26	19.6						

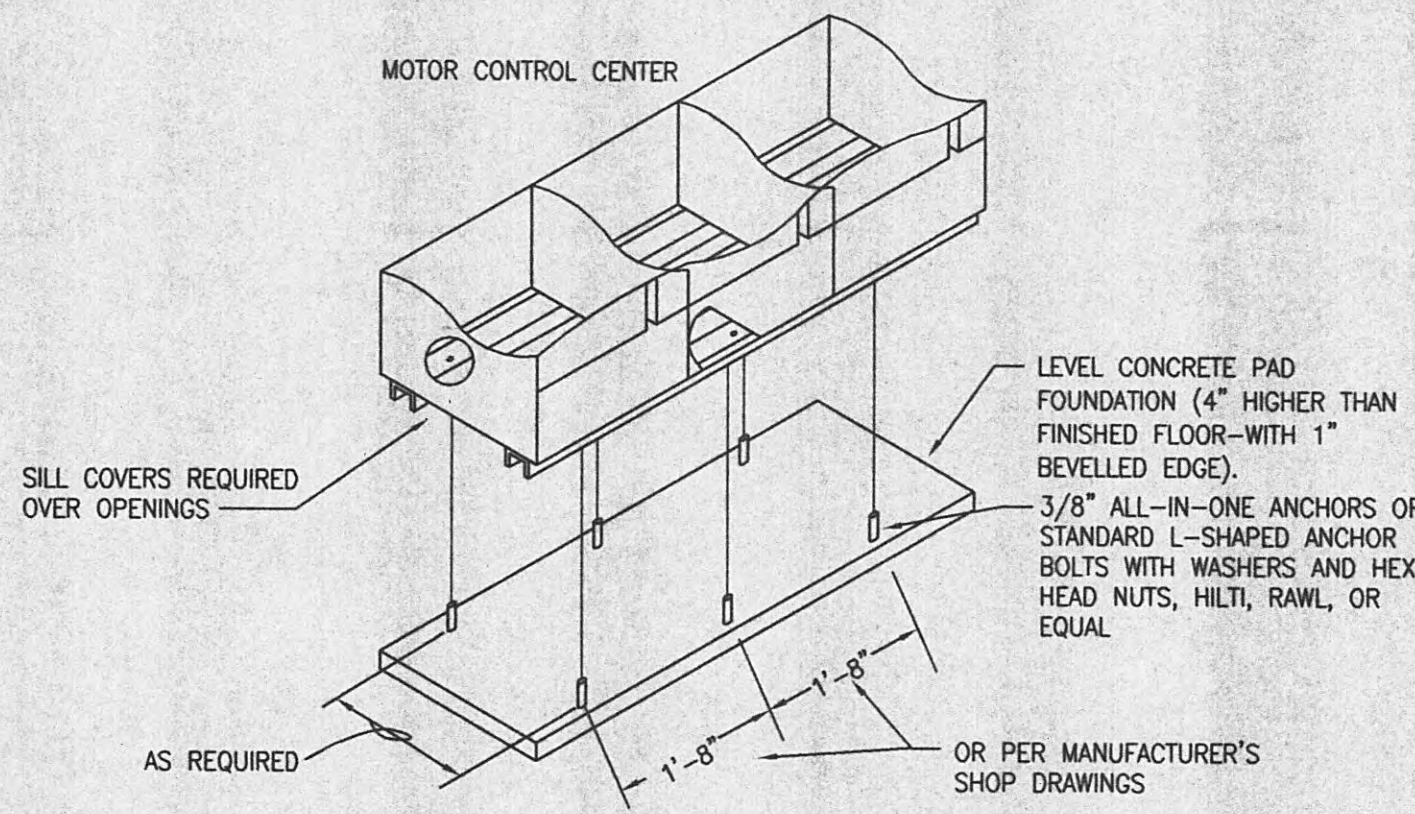
LIGHT FIXTURE SCHEDULE

TAG	DESCRIPTION	LAMPS	MFR.	MODEL NO.	MOUNTING
LFA	INDUSTRIAL FLUORESCENT	2-F32T8	HOLOPHANE	7200-4-12-J-F	SURFACE
LFB	WALL PACK	1-150 HPS	HOLOPHANE	WL2K-150 HP-12-BZ	SURFACE
LFC	NEMA 4X EMERGENCY	2-36W	HOLOPHANE	DM5-C-36-T-NN-2-DL	SURFACE



TYPICAL MOTOR CONTROL CENTER FRONT ELEVATION

NOT TO SCALE



TYPICAL STRUCTURE ANCHORING DETAIL

- NOT TO SCALE
- FOR ALL MOTOR CONTROL CENTERS AND FREE STANDING ELECTRICAL CABINETY
- USE EPOXY SET ANCHORS WHERE REQUIRED TO PREVENT SPALLING OF CONCRETE.

GRW PROJECT NO. 7716-01 CONTRACT S05-01

HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE CHERRY ST. & WALNUT HILL PUMP STATION SCHEDULES AND DETAILS

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NO.	DESCRIPTION	DATE BY
	REVISIONS	



GRW Elrod Dunson, Inc.
Engineers, Architects, Planners
LEXINGTON LOUISVILLE INDIANAPOLIS
NASHVILLE KNOXVILLE

DESIGNED: TMH	DATE: JANUARY, 2005
DRAWN: JMG	SCALE: AS NOTED
REVIEWED: TMH	SHEET NO. E-6
APPROVED: TMH	

3/11/05

GRILLES, REGISTERS AND DIFFUSERS

MARK NO.	TYPE	UNIT SIZE	NOMINAL INLET	PERFORMANCE						MAT.	FINISH	REMARKS
				TYP. CFM	MOUNTING	PATTERN	THROW FT.	Δ P* IN W.C.	SOUND LEVEL			
S-1	LOUVERED SUPPLY GRILLE	12x12	12x12	627	DUCT	ADJUSTABLE BLADES H&V	23	0.063	16	STEEL BORDER, AL. BLADES	WHITE	TITUS, OR EQUAL, FRESCO MODEL FR-1
S-2	LOUVERED SUPPLY GRILLE	12x12	12x12	750	DUCT	ADJUSTABLE BLADES H&V	25	0.084	20	STEEL BORDER, AL. BLADES	WHITE	TITUS, OR EQUAL, FRESCO MODEL FR-1

LOUVER SCHEDULE

MARK	LOCATION	TYPE	NOM. SIZE WxHxD	FREE AREA	TYP. CFM	S.P. LOSS IN W.C.	MATERIAL	FINISH	REMARKS
L-1	CHERRY ST. P.S.	STATIONARY DRAINABLE	24x24x6	1.89	627	0.017	ALUMINUM	KYNAR	RUSKIN, OR EQUAL, MODEL ELF6375DXH DRAINABLE STATIONARY LOUVER W/KYNAR COATING. MOUNT 7'-4" A.F.F.
L-2	CHERRY ST. P.S.	STATIONARY DRAINABLE	16x16x6	0.72	627	0.09	ALUMINUM	KYNAR	RUSKIN, OR EQUAL, MODEL ELF6375DXH DRAINABLE STATIONARY LOUVER W/KYNAR COATING. MOUNT 8'-0" A.F.F.
L-3	WALNUT HILL P.S.	STATIONARY DRAINABLE	24x24x6	1.89	750	0.025	ALUMINUM	KYNAR	RUSKIN, OR EQUAL, MODEL ELF6375DXH DRAINABLE STATIONARY LOUVER W/KYNAR COATING. MOUNT 7'-4" A.F.F.
L-4	WALNUT HILL P.S.	STATIONARY DRAINABLE	16x16x6	0.72	750	0.13	ALUMINUM	KYNAR	RUSKIN, OR EQUAL, MODEL ELF6375DXH DRAINABLE STATIONARY LOUVER W/KYNAR COATING. MOUNT 8'-0" A.F.F.

ELECTRIC HEATER SCHEDULE

MARK	LOCATION	UNIT TYPE	MIN. BTUH.	CFM	KW	THROW FT.	*F TEMP. RISE	VOLTS/PHASE	REMARKS
EUH-1	CHERRY ST. P.S.	HOSE-DOWN	17,065	400	5.0	20	40	480/3ø	TRANE, OR EQUAL, MODEL UHRA053DAAT, W/ UNIT MOUNTED THERMOSTAT, & S.S. WALL/CEILING MOUNTING BRACKET. MOUNT 7' A.F.F.
EUH-2	WALNUT HILL P.S.	HOSE-DOWN	17,065	400	5.0	20	40	480/3ø	TRANE, OR EQUAL, MODEL UHRA053DAAT, W/ UNIT MOUNTED THERMOSTAT, & S.S. WALL/CEILING MOUNTING BRACKET. MOUNT 7' A.F.F.

ENERGY RECOVERY VENTILATOR SCHEDULE

MARK	LOCATION	E.S.P IN. WC.	CFM	DUCT SIZE	WHEEL % EFF.	NO. & TYPE BLOWERS	DRIVE	MOTOR H.P. EA.	VOLTS/PHASE	MIN. CIRC. AMPS	REMARKS
ERV-1	CHERRY ST. P.S.	0.75	627	10"x12" IN 6 3/4"x7" OUT	75.4	2, F.C. CENTRIFUGAL	DIRECT	1/3	115/1	17	GREENHECK, OR EQUAL, MODEL ERV-251S-20-A W/ FRESH AIR FILTER.
ERV-2	WALNUT HILL P.S.	0.75	750	10"x12" IN 6 3/4"x7" OUT	72.5	2, F.C. CENTRIFUGAL	DIRECT	1/3	115/1	17	GREENHECK, OR EQUAL, MODEL ERV-251S-20-A W/ FRESH AIR FILTER.

GENERAL LEGEND

	APPEARS ON SHEET WHERE SECTION IS CUT
	SECTION IDENTIFICATION LETTER
	SHEET WHERE SECTION IS DRAWN
	APPEARS ON THE SHEET WHERE SECTION IS DRAWN
	SECTION OR DETAIL IDENTIFICATION LETTER
	SHEET WHERE DRAWN
	ENLARGED AREA OR PARTIAL PLAN SYMBOL (ON SHEET WHERE IDENTIFIED AND SHEET WHERE DRAWN)
	IDENTIFICATION LETTER
	SHEET WHERE DRAWN
	PLAN MATCH LINE SYMBOL
	CONNECTION OF NEW WORK TO EXISTING
	LINE OR EQUIPMENT TO BE REMOVED
	ROOM NUMBER
	CEILING HEIGHT
	ABOVE FINISHED FLOOR
	TOP OF STEEL, BOTTOM
	TOP OF BEAM, BOTTOM
	TOP OF JOIST, BOTTOM
	TOP OF CONCRETE, BOTTOM
	TOP OF PIPE, BOTTOM
	BOTTOM OF DUCT
	OPPOSED BLADE DAMPER
	STAINLESS STEEL

MECHANICAL LEGEND

	NEW DUCT - 1ST FIGURE IS DIMENSION SHOWN
	SUPPLY OR OUTSIDE AIR DUCTWORK; PLAN, UP & DOWN
	RETURN OR EXHAUST DUCTWORK
	ROUND DUCTWORK; PLAN, UP AND DOWN
	AIR FLOW, DIRECTION
	MOTOR OPERATED DAMPER; PLAN, ONE LINE DIAGRAM
	AIR TURNING VANES; PLAN, ONE LINE DIAGRAM
	DUCT TRANSITION; PLAN, ONE LINE DIAGRAM
	FLEXIBLE DUCT CONNECTOR; PLAN
	FLOW SWITCH
	THERMOSTAT, OR TEMP. CONTROLLER
	HORIZONTAL UNIT HEATER
	ROOF EXHAUST HOOD, EXHAUST FAN
	ROOF INTAKE HOOD, SUPPLY FAN

GENERAL NOTES

- GENERAL NOTES, WHEREVER THEY ARE FOUND, APPLY TO ALL WORK IN THE PROJECT, UNLESS OTHERWISE INDICATED. SHEET NOTES, UTILIZING NOTE SYMBOLS, APPLY ONLY TO THE SHEET ON WHICH THEY ARE FOUND, UNLESS OTHERWISE STATED. THE MEANING OF NOTE SYMBOLS AND NUMBERS VARIES FROM SHEET TO SHEET.
- CONTRACTOR SHALL UTILIZE ALL INFORMATION IN THE CONTRACT DOCUMENTS, INCLUDING THE WORK. CONTRACTOR SHALL UTILIZE DETAILS AND FLOW DIAGRAMS FOR THE WORK WHERE APPROPRIATE, WHETHER OR NOT THEY ARE SPECIFICALLY REFERENCED ON THE PLANS OR SUPPORTING DRAWINGS.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND CONTRACT DOCUMENTS ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE ANY WORK RELATING TO THOSE CONDITIONS IS PERFORMED.
- LEGENDS OR LISTS OF SYMBOLS AND ABBREVIATIONS ARE GENERAL IN NATURE AND MAY CONTAIN ITEMS NOT USED IN THE CONTRACT DOCUMENTS. IF ANY SUCH ITEMS ARE FOUND WHICH ARE NOT DEFINED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER SHALL BE CONTACTED FOR CLARIFICATION BEFORE THE BID.
- CONTRACTOR SHALL MAINTAIN A SET OF PROJECT RECORD DRAWINGS AT THE JOB SITE AND SHALL BE RESPONSIBLE FOR MAKING CLEAR, NEAT CHANGES TO THE DRAWINGS, REFLECTING CHANGES TO THE WORK AND VARIANCE IN EXISTING CONDITIONS.
- PROVIDE ALL MISCELLANEOUS STEEL, AS REQUIRED, TO SUPPORT ALL MECHANICAL DUCT AND PIPING SYSTEMS AND EQUIPMENT. HANG ALL EQUIPMENT FROM STRUCTURE WITH MINIMUM OF TWO TRAPEZE ASSEMBLIES OR FOUR INTEGRAL MOUNTING POINTS WITH VIBRATION ISOLATORS ON ALL FOUR SUPPORTS. DO NOT HANG ANYTHING FROM STEEL, COMPOSITION OR WOODEN DECKS. NON-ROOF CONCRETE DECKS MAY BE USED ONLY WITH PERMISSION OF THE ENGINEER. DO NOT HANG ANYTHING FROM MECHANICAL OR ELECTRICAL ITEMS.
- NO CONCRETE RIBS OR JOISTS SHALL BE CUT WITHOUT SPECIFIC PERMISSION FROM THE ENGINEER. ALL ROOF OR FLOOR DECK PENETRATIONS IN WAFFLE STRUCTURE SHALL BE IN THE THIN-SLAB DEPRESSIONS IN THE STRUCTURE UNLESS OTHERWISE SHOWN.
- NO STEEL STRUCTURAL MEMBERS SHALL BE CUT, BURNED, WELDED OR DRILLED WITHOUT SPECIFIC PERMISSION OF THE ENGINEER.
- NO WOODEN STRUCTURAL MEMBERS SHALL BE CUT OR DRILLED EXCEPT AS INDICATED IN THE CONTRACT DOCUMENTS OR AS APPROVED BY THE ENGINEER.
- CONSULT ROOF PLAN AND STRUCTURAL DRAWINGS FOR PLACEMENT OF ROOF MOUNTED EQUIPMENT. PROVIDE ALL NECESSARY ROOF CURBS, EQUIPMENT RAILS AND BASES AND ANY ADDITIONAL REQUIRED FRAMING IN COORDINATION WITH STRUCTURAL AND ROOFING WORK.
- ALL EQUIPMENT, DUCT, PIPING AND ACCESSORIES INSTALLED OUTSIDE OR OTHERWISE EXPOSED TO THE ELEMENTS SHALL BE ADEQUATELY WEATHERPROOFED, IN KEEPING WITH THE SPECIFICATIONS. ALL FERROUS METAL FRAMING COMPONENTS SHALL BE STAINLESS STEEL OR HOT-DIP GALVANIZED.
- DO NOT CHANGE PATH OF PIPING OR DUCT RUNS, ADD TURNS OR OFFSETS OR CHANGE DUCT DIMENSIONS OR PIPE SIZE WITHOUT FIRST CONSULTING THE ENGINEER. PIPE SIZES SHOWN ON DRAWINGS ARE NOMINAL UNLESS OTHERWISE INDICATED. ALL DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE DIMENSIONS FOR SHOP OR FIELD-FABRICATED DUCT AND NOMINAL SIZES FOR FACTORY FABRICATED DUCT.
- CONTRACTOR SHALL CERTIFY AT THE TIME OF OWNER OCCUPANCY THAT ALL BELT-DRIVEN EQUIPMENT HAS BEEN CHECKED FOR BELT TIGHTNESS AFTER WEAR-IN PERIOD.
- ALL EXISTING EQUIPMENT SHUTDOWNS OR INTERRUPTIONS OF UTILITY SERVICE REQUIRED FOR COMPLETION OF THE WORK SHALL BE SCHEDULED IN ADVANCE, AS REQUIRED BY THE OWNER.
- COORDINATE ALL PIPING AND DUCTWORK WITH BOTH NEW AND EXISTING MECHANICAL AND ELECTRICAL WORK, INCLUDING HVAC, PLUMBING, ELECTRICAL, FIRE ALARM AND COMMUNICATIONS.
- CONTRACTOR IS RESPONSIBLE FOR MAKING ALL REQUIRED CONNECTIONS FOR A COMPLETE SYSTEM. CONNECTIONS OF NEW WORK TO EXISTING IS USUALLY INDICATED BY SPECIAL SYMBOL (SEE LEGEND). SYMBOLS MISSING FROM THE DRAWINGS DO NOT EXCUSE THE CONTRACTOR FROM PROVIDING THE WORK.
- ALL DUCTWORK AND SHEET METAL SHALL BE PROVIDED AS INDICATED AND SHALL BE MANUFACTURED AND SHOP- OR FIELD-FABRICATED, AS A MINIMUM, IN ACCORDANCE WITH THE RECOMMENDATIONS AND DETAILS OF SMACNA, UNLESS SPECIFICALLY INDICATED OTHERWISE.
- FANS SHALL BE PROVIDED AS INDICATED BY GREENHECK, CARNES, COOK OR APPROVED EQUAL. GRILLES, REGISTERS AND DIFFUSERS SHALL BE PROVIDED AS INDICATED BY TITUS, TUTTLE AND BAILEY, CARNES OR APPROVED EQUAL. LOUVERS, HOODS AND PENTHOUSES SHALL BE PROVIDED AS INDICATED BY GREENHECK, AIRSTREAM, LOUVERS AND DAMPERS, CARNES, RUSKIN OR APPROVED EQUAL. PROVIDE FIRE AND SMOKE DAMPERS IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA AND THE TENNESSEE BUILDING CODE.
- USE TURNING VANES, PER SMACNA CONSTRUCTION GUIDELINES, FOR ALL MITERED RECTANGULAR TURNS OF 45 DEGREES OR MORE.
- PROVIDE ALL CONTROLS NECESSARY TO OPERATE EQUIPMENT AS SHOWN OR DESCRIBED, INCLUDING VALVES, ACTUATORS, THERMOSTATS, DAMPERS, ALL ACCESSORY DEVICES, POWER AND/OR PNEUMATIC SERVICE.
- PROVIDE DISCONNECTS AND MAGNETIC STARTERS (OR RELAYS WITH OVERLOAD PROTECTION FOR SINGLE PHASE) FOR ALL EQUIPMENT SUPPLIED UNDER DIVISION 15 WHICH IS SPECIFIED TO HAVE FACTORY CONTROL PANEL. POWER WIRING AND CONDUIT TO THESE DEVICES AND BETWEEN THESE DEVICES AND MECHANICAL EQUIPMENT, IF REQUIRED, SHALL BE SUPPLIED UNDER DIVISION 16.
- ANY AND ALL DAMAGE DUE TO DEMOLITION OR CONSTRUCTION IS TO BE REPAIRED OR REPLACED AS APPROPRIATE, SUBJECT TO ENGINEER'S APPROVAL, AND AT NO ADDITIONAL COST TO THE OWNER.

GRW PROJECT NO. 7716-01 CONTRACT S05-01

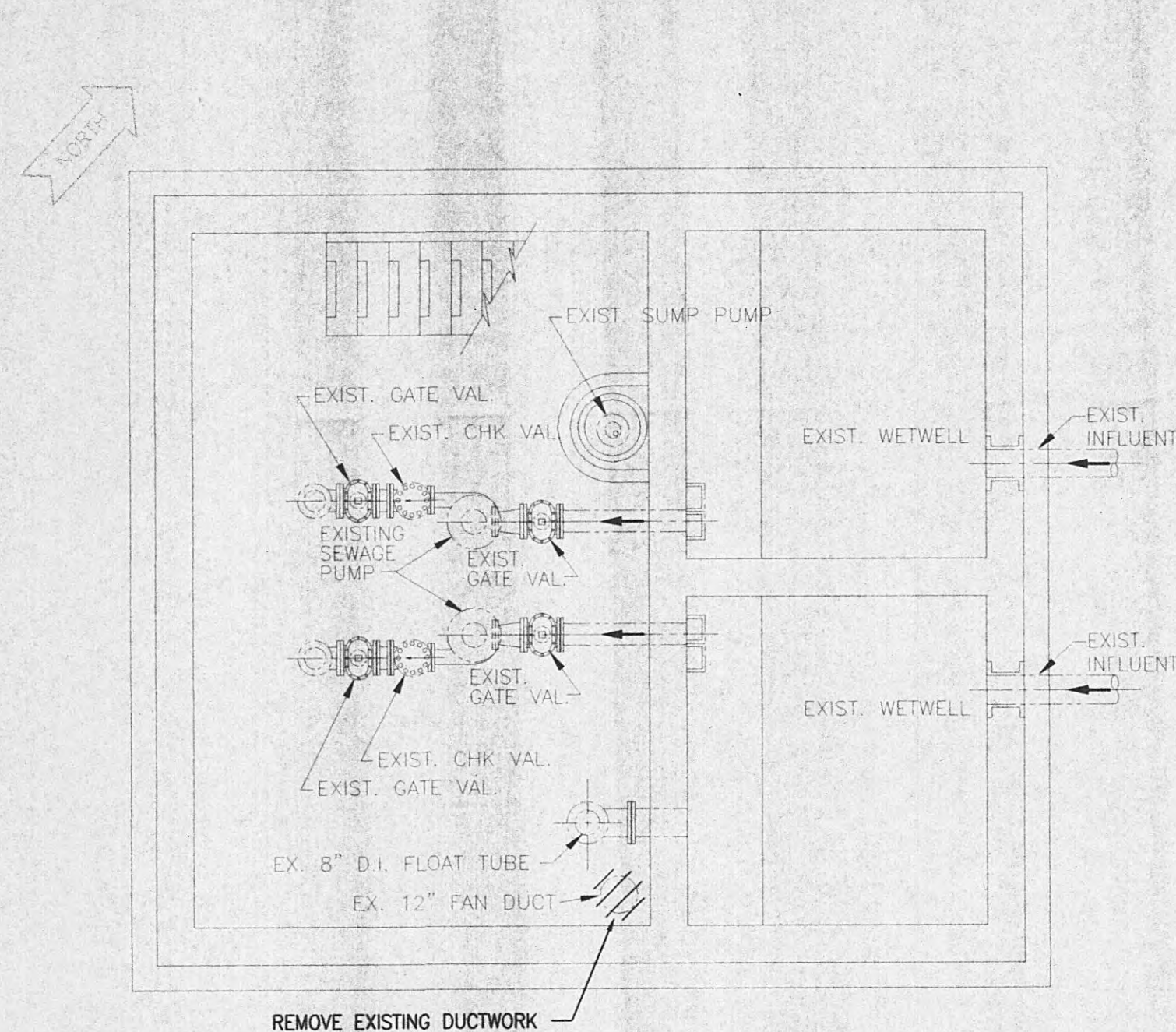
HARRIMAN UTILITY BOARD
HARRIMAN, TENNESSEE
CHERRY ST. PUMP STATION
MECHANICAL SCHEDULES

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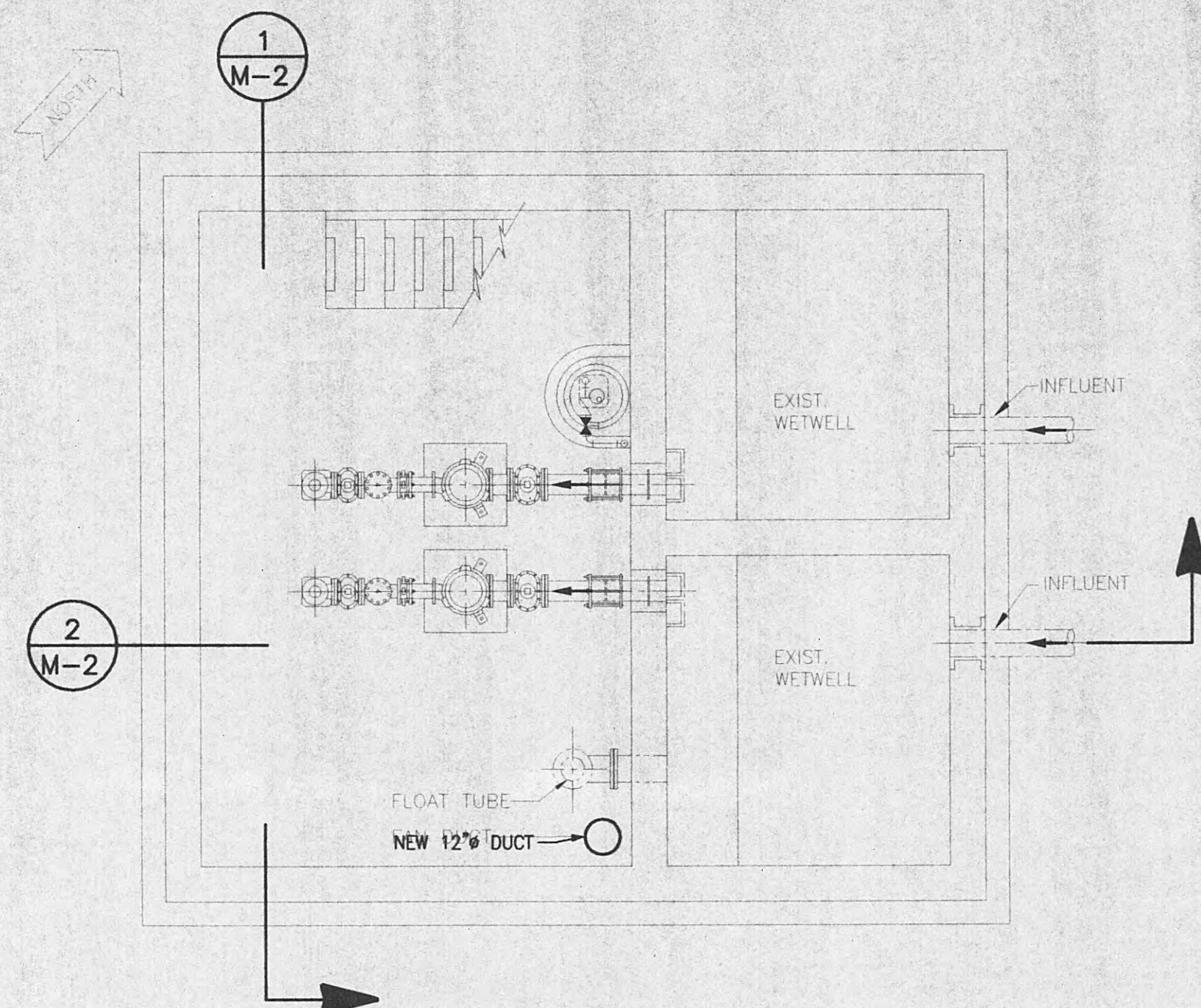


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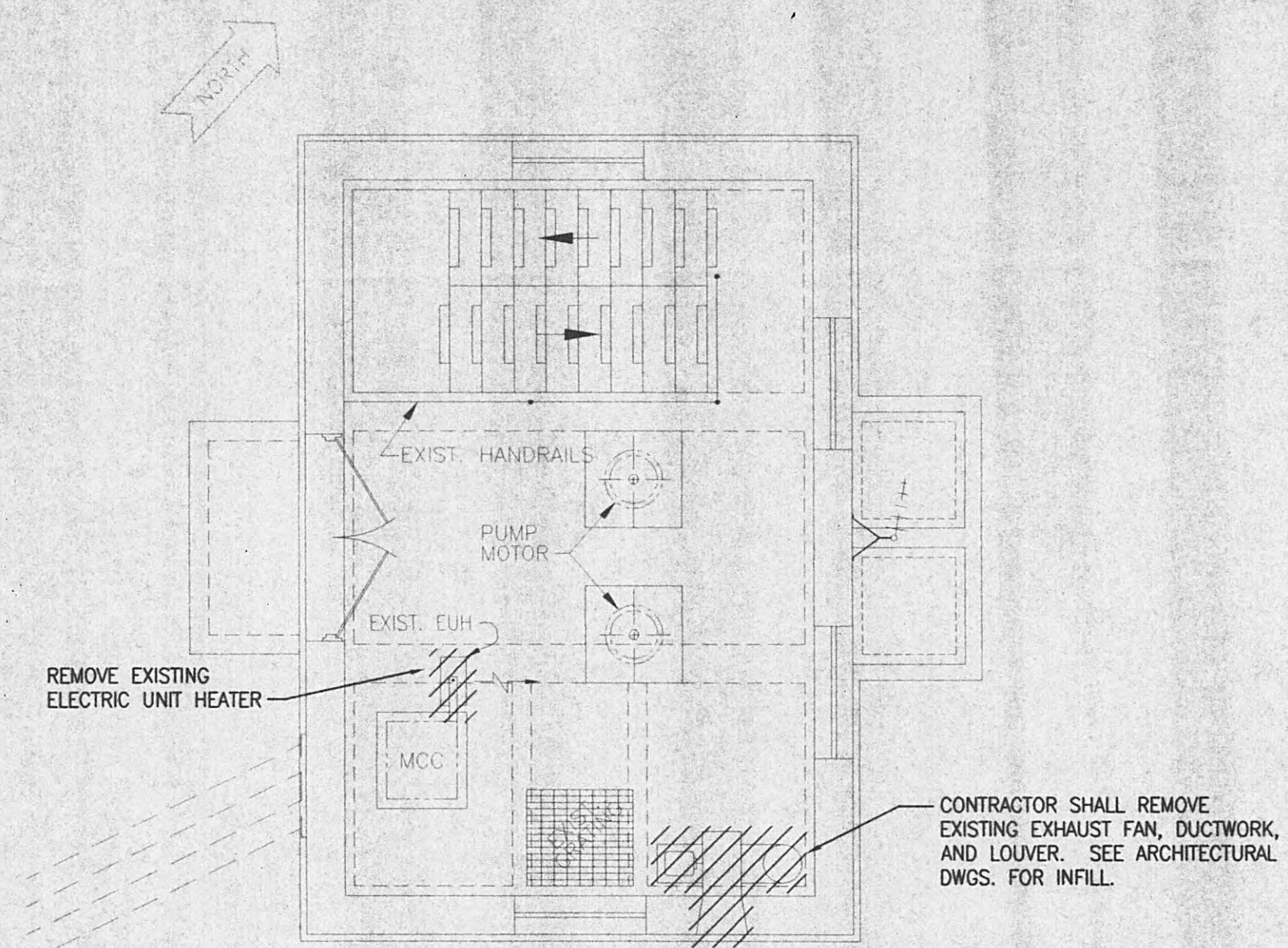
DESIGNED: RGE	DATE: JANUARY, 2005
DRAWN: JMG	SCALE: AS NOTED
REVIEWED: RGE	SHEET NO.
APPROVED: RGE	M-1



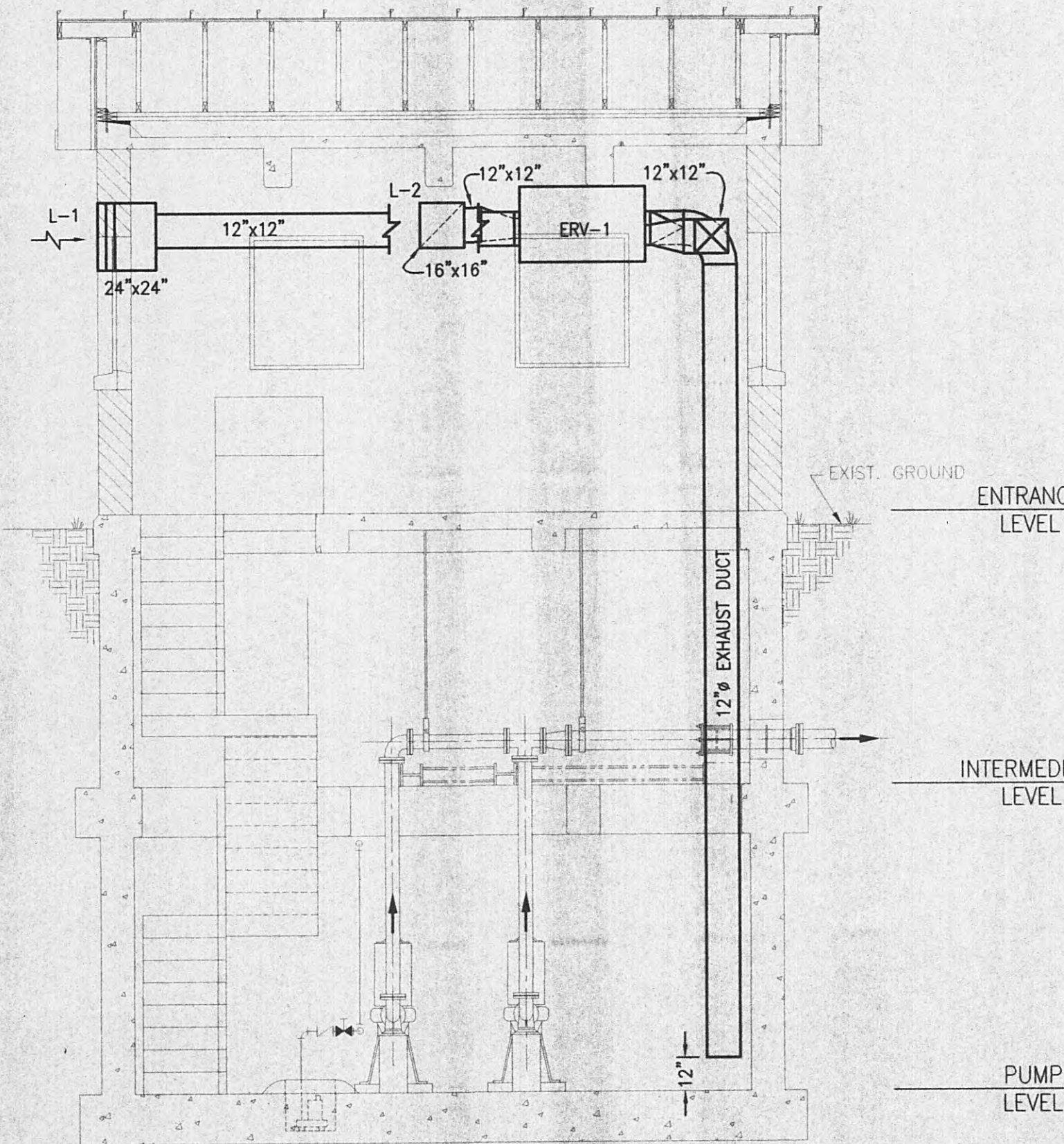
DEMOLITION FLOOR PLAN - PUMP LEVEL
SCALE: 1/4" = 1'-0"



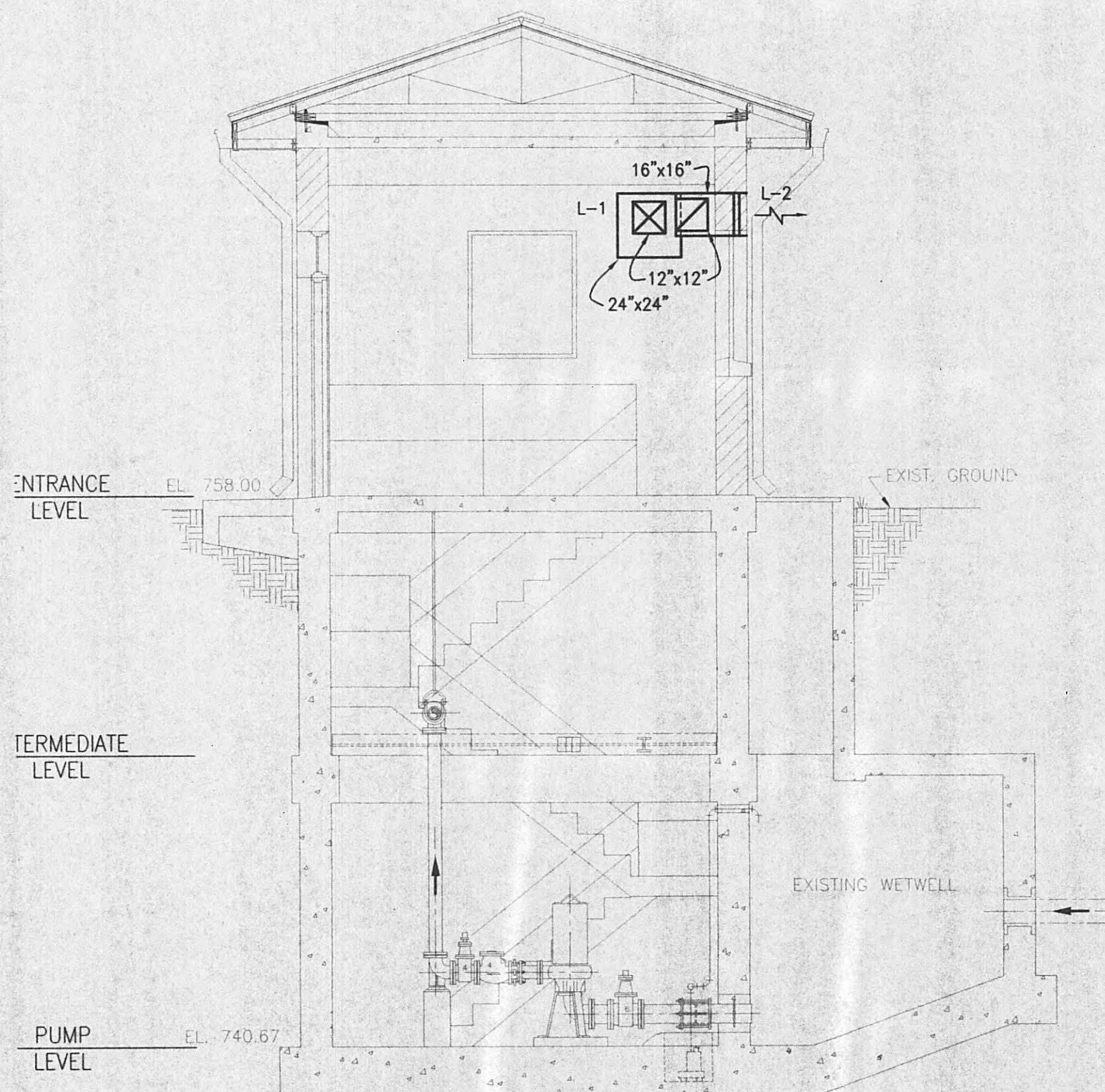
NEW WORK FLOOR PLAN - PUMP LEVEL
SCALE: 1/4" = 1'-0"



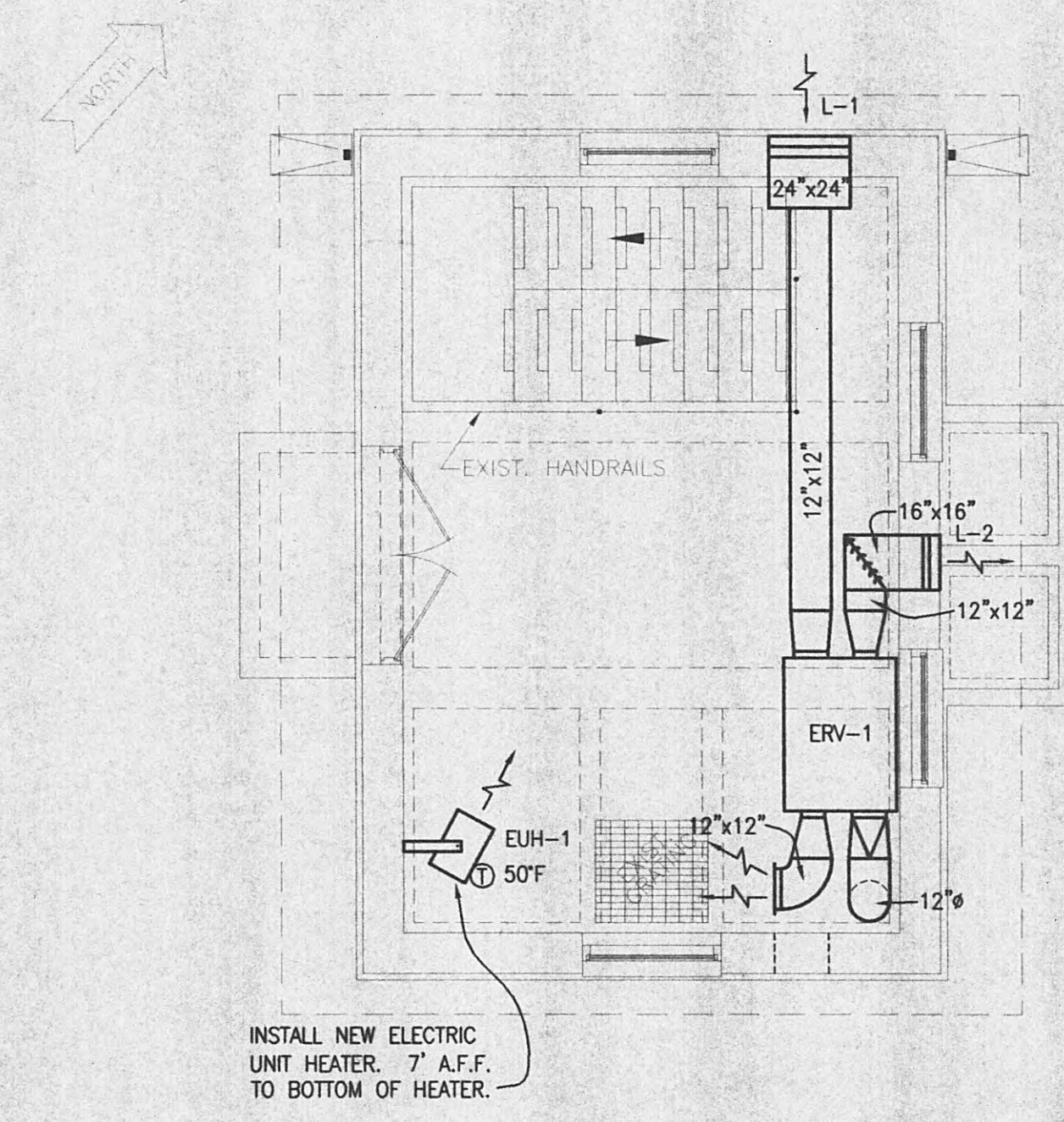
DEMOLITION FLOOR PLAN - ENTRANCE LEVEL
SCALE: 1/4" = 1'-0"



NEW WORK - SECTION 1
SCALE: 1/4" = 1'-0"

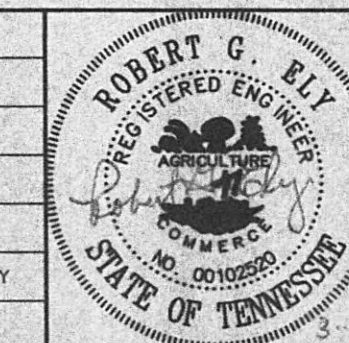


NEW WORK - SECTION 2
SCALE: 1/4" = 1'-0"



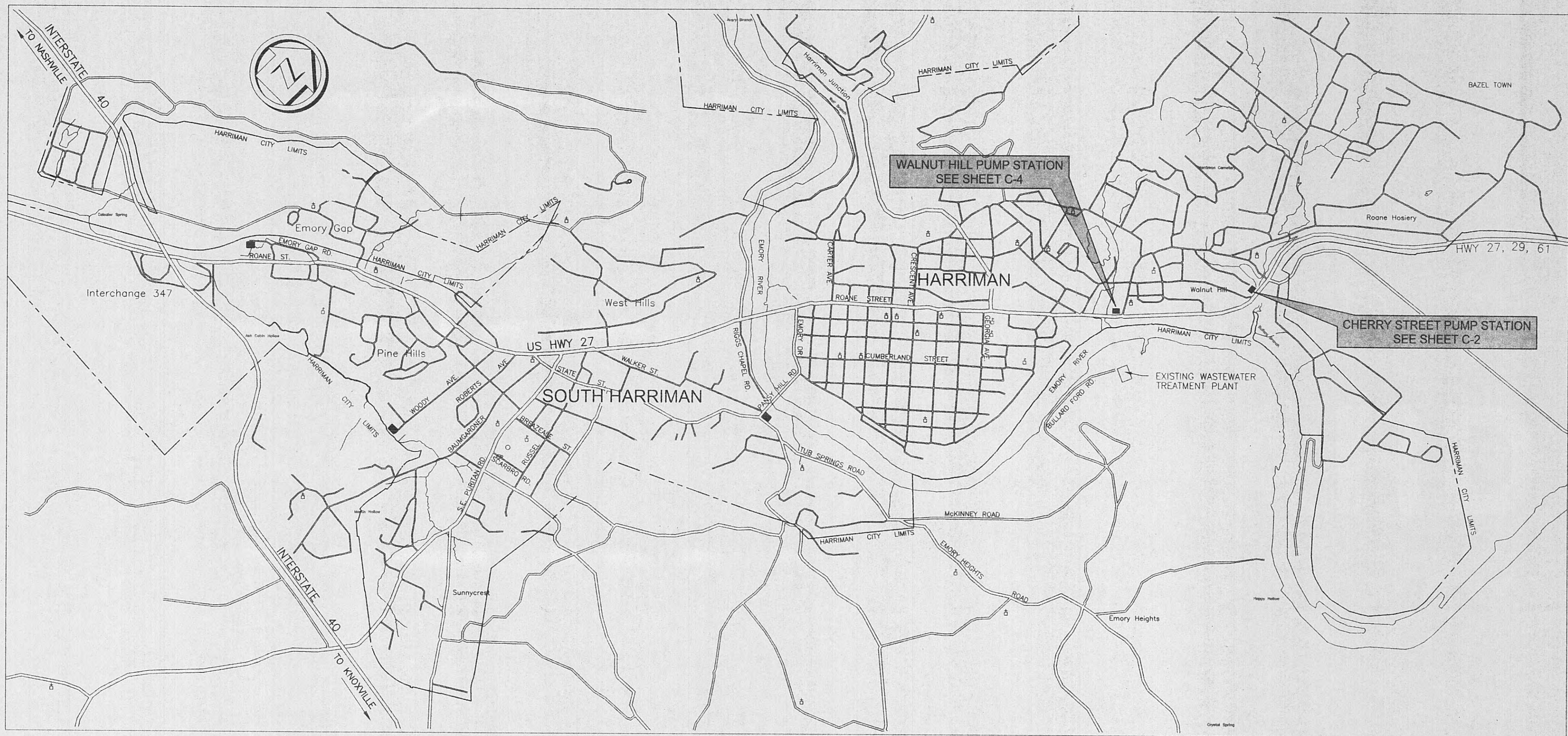
NEW WORK FLOOR PLAN - ENTRANCE LEVEL
SCALE: 1/4" = 1'-0"

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NO.	DESCRIPTION	DATE	BY
REVISIONS			



GRW PROJECT NO. 7716-01		CONTRACT: S05-01	
HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE CHERRY ST. PUMP STATION MECHANICAL PLANS & SECTIONS			
DESIGNED:	RGE	DATE:	JANUARY, 2005
DRAWN:	JMG	SCALE:	AS NOTED
REVIEWED:	RGE	SHEET NO.	M-2
APPROVED:	RGE		

GRW Elrod Dunson, Inc.
 Engineers, Architects, Planners
 LEXINGTON LOUISVILLE INDIANAPOLIS
 NASHVILLE KNOXVILLE



LOCATION MAP
SCALE: 1" = 1500'

INDEX OF SHEETS

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- C-2 EXISTING CHERRY STREET SEWAGE PUMP STATION - PLAN VIEWS
- C-3 EXISTING CHERRY STREET SEWAGE PUMP STATION - SECTIONAL VIEWS
- C-4 EXISTING WALNUT HILL SEWAGE PUMP STATION - PLAN VIEWS
- C-5 EXISTING WALNUT HILL SEWAGE PUMP STATION - SECTIONAL VIEWS

- A-1 CHERRY ST. PUMP STATION - DEMO & NEW WORK PLAN VIEWS
- A-2 WALNUT HILL PUMP STATION - DEMO & NEW WORK PLAN VIEWS
- A-3 CHERRY ST. & WALNUT HILL PUMP STATIONS - CHERRY ST. & WALNUT HILL ROOF PLANS
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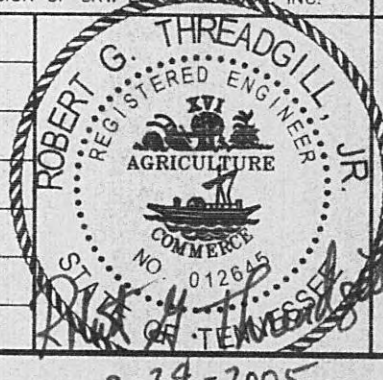
- E-1 CHERRY ST. & WALNUT HILL PUMP STATIONS STANDARD ELECTRICAL SYMBOLS
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- M-3 WALNUT HILL PUMP STATION - MECHANICAL PLANS & SECTIONS



VICINITY MAP
NOT TO SCALE

REVISIONS			
NO.	DESCRIPTION	DATE	BY



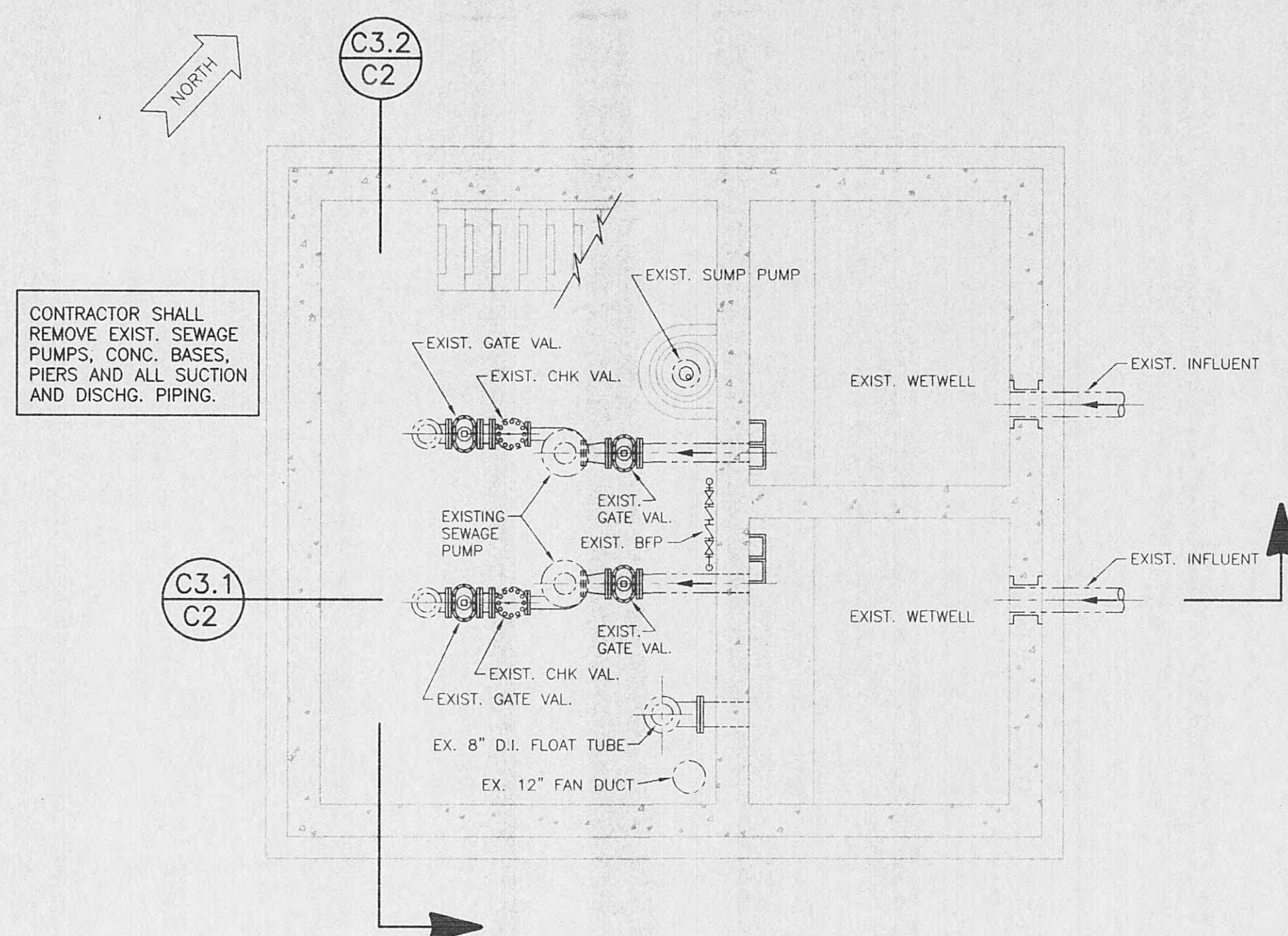
GRW PROJECT NO. 7716-01
 CONTRACT S05-01

HARRIMAN UTILITY BOARD
 HARRIMAN, TENNESSEE
 LOCATION MAP, VICINITY MAP
 AND INDEX OF SHEETS

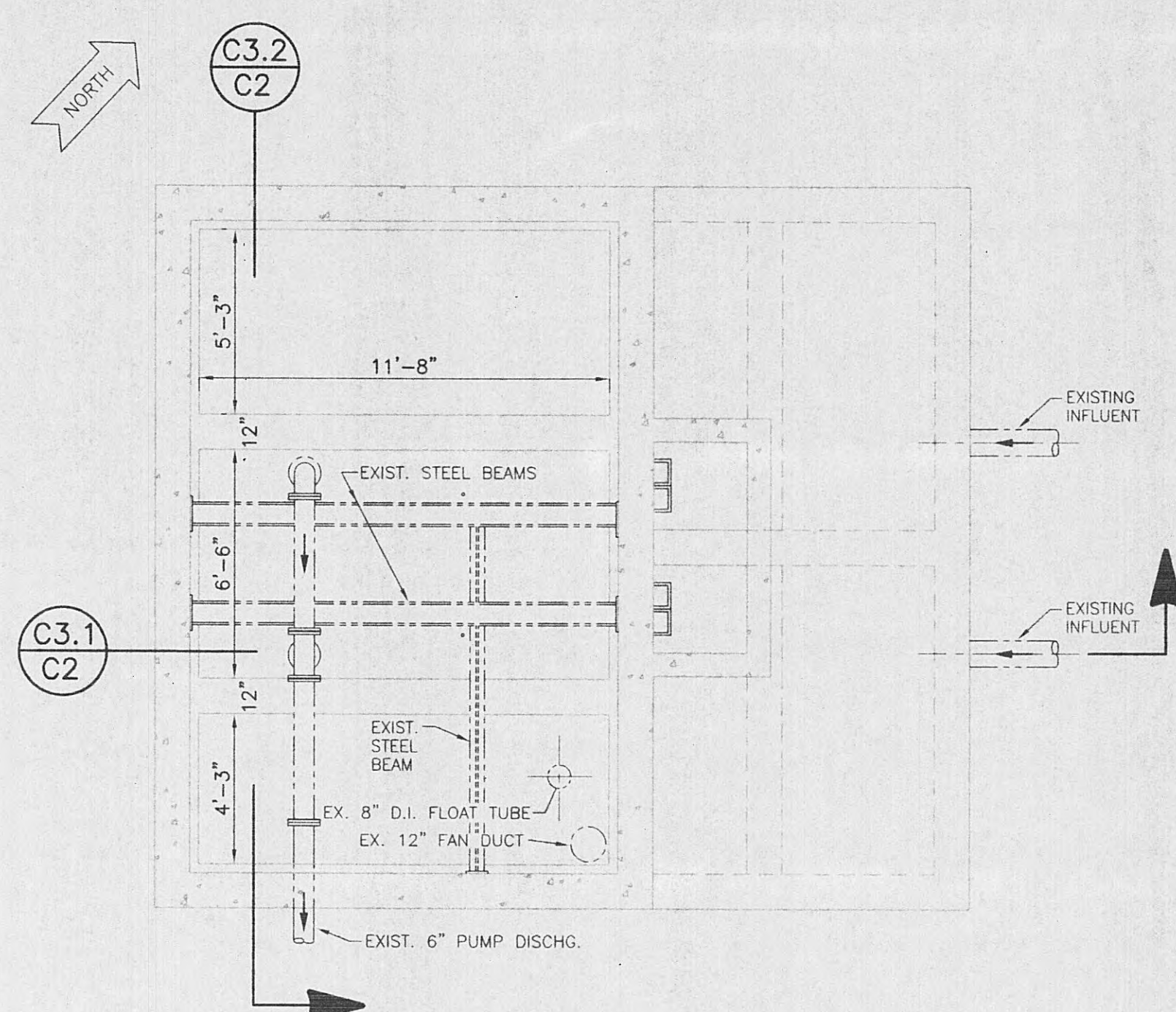
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RG1	JAN. 2005
DRAWN:	SCALE:
DR	AS NOTED
REVIEWED:	SHEET NO.
RG1	C-1
APPROVED:	
RG1	

GRW Elrod Dunson, Inc.
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 LEXINGTON LOUISVILLE INDIANAPOLIS
 NASHVILLE KNOXVILLE

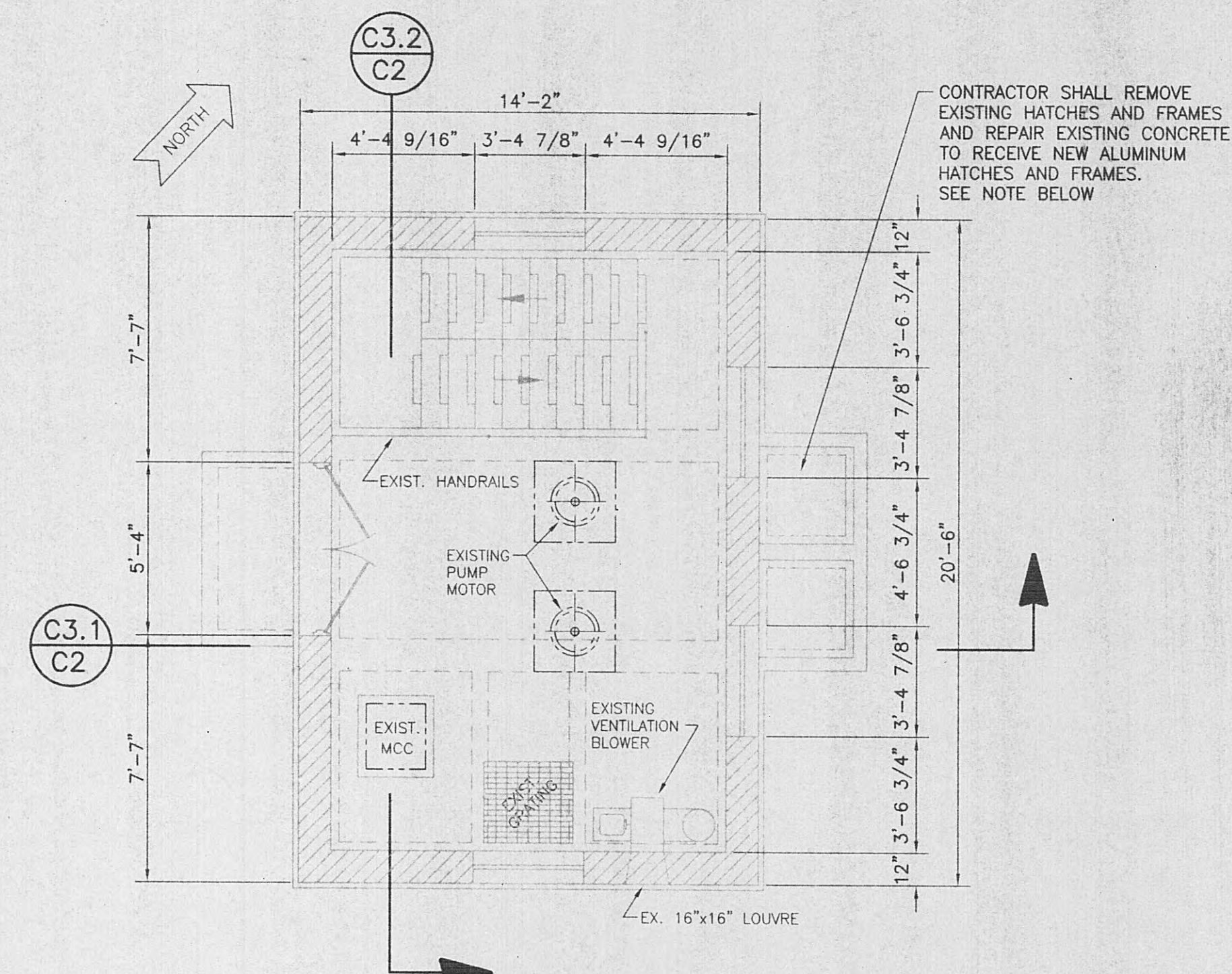
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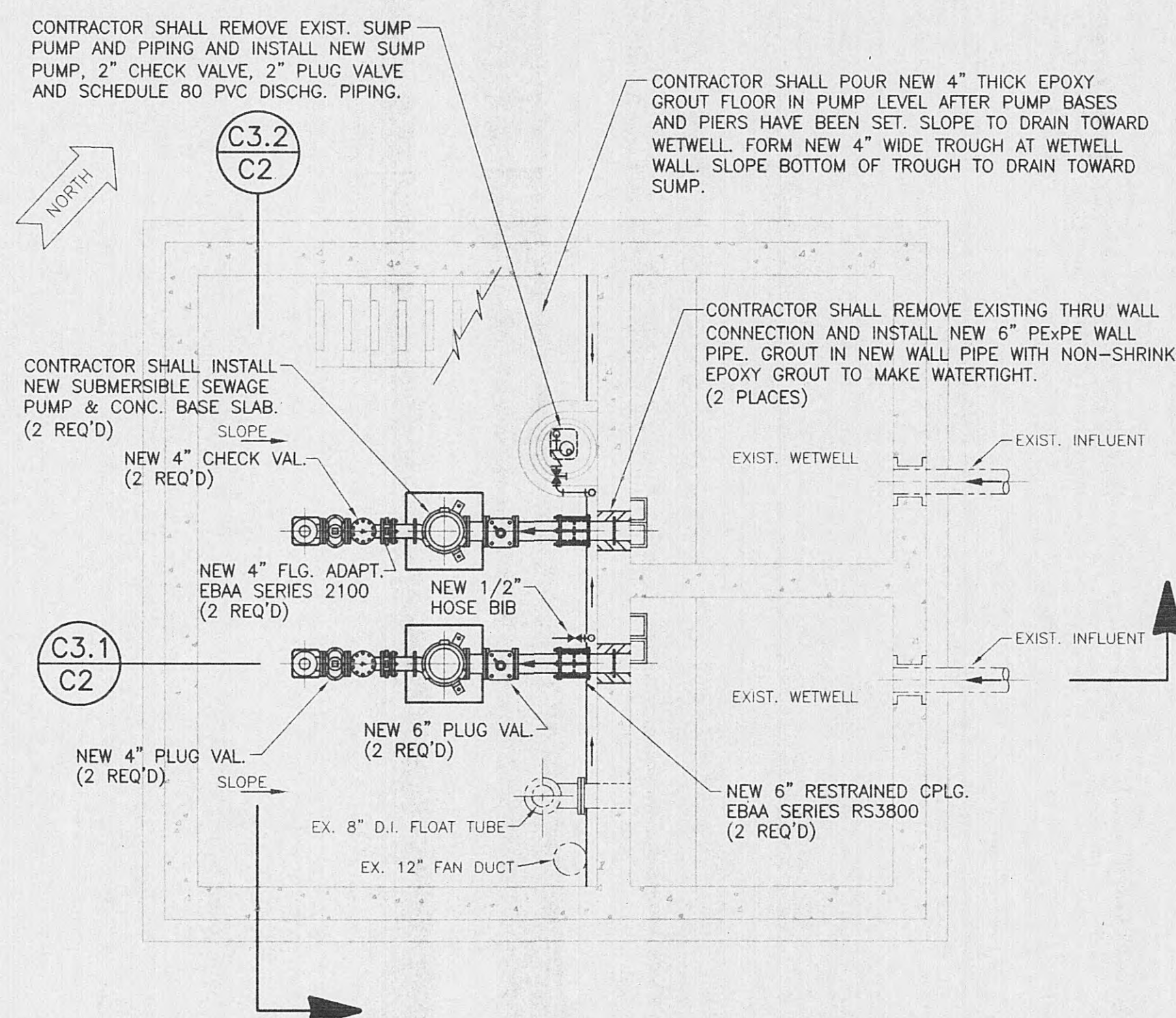
EXISTING FLOOR PLAN - PUMP LEVEL
SCALE: 1/4" = 1'-0"



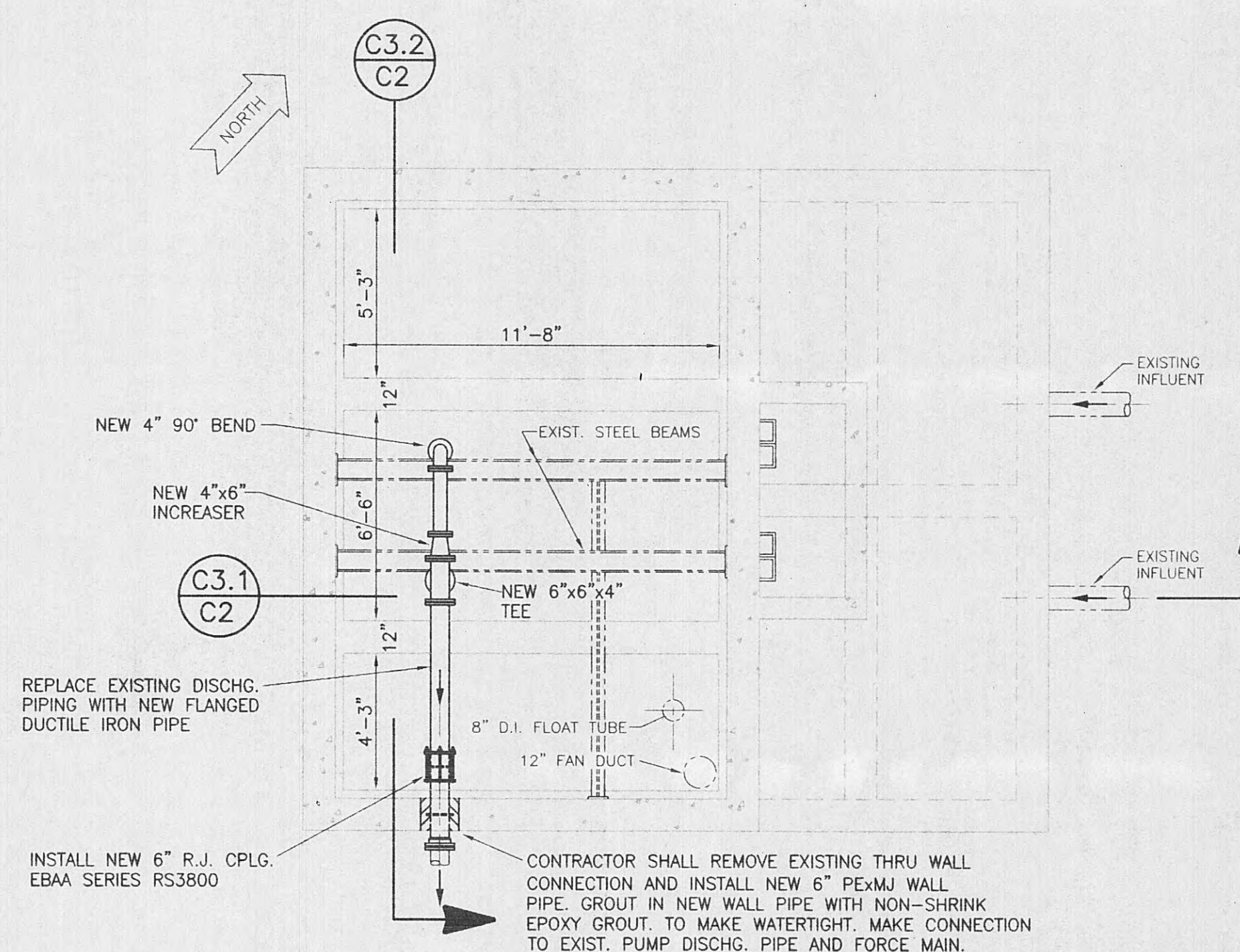
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SCALE: 1/4" = 1'-0"



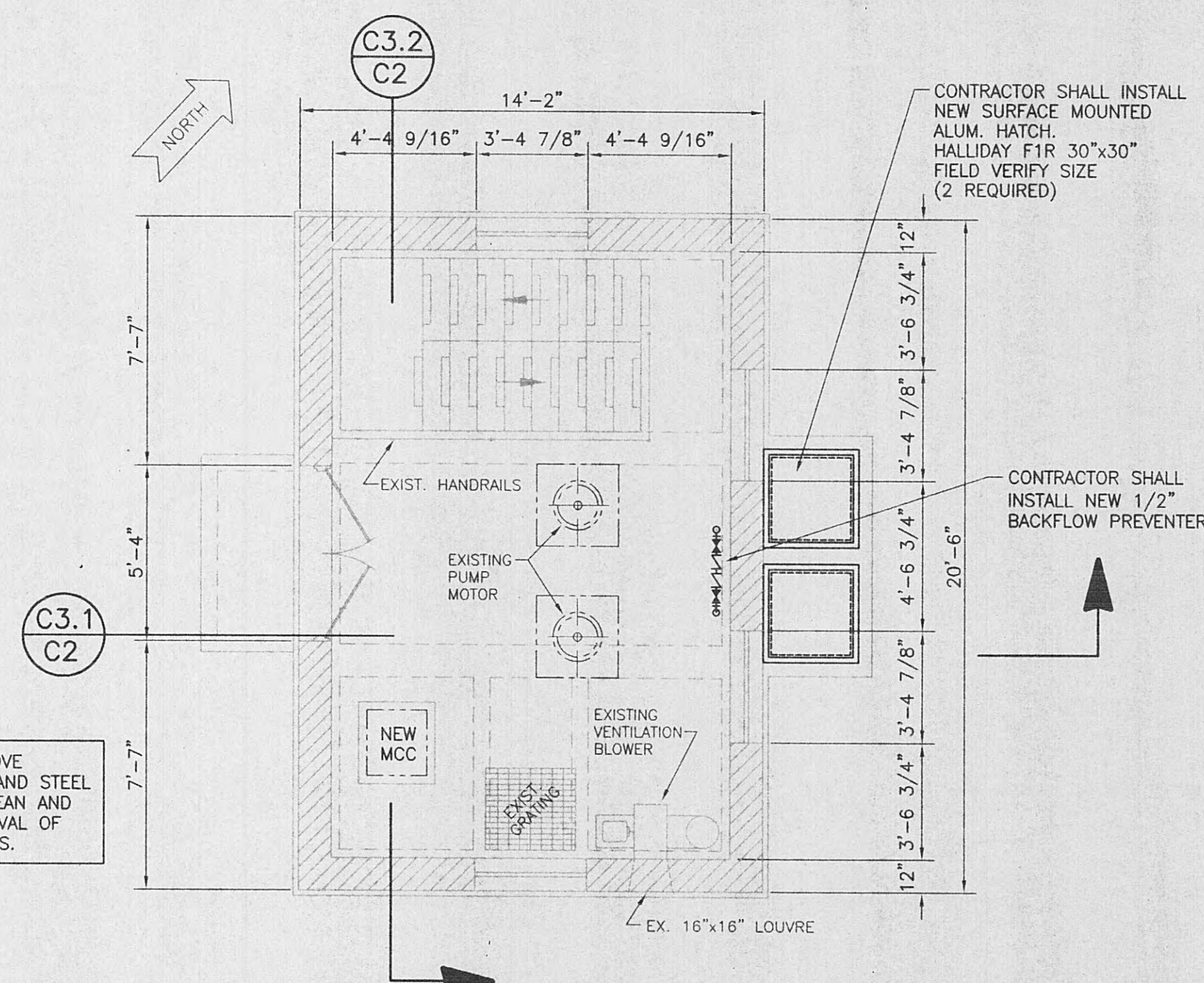
EXISTING FLOOR PLAN - ENTRANCE LEVEL
SCALE: 1/4" = 1'-0"



MODIFIED FLOOR PLAN - PUMP LEVEL
SCALE: 1/4" = 1'-0"



MODIFIED FLOOR PLAN - INTERMEDIATE LEVEL
SCALE: 1/4" = 1'-0"



MODIFIED FLOOR PLAN - ENTRANCE LEVEL
SCALE: 1/4" = 1'-0"

CONTRACTOR NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR BYPASS PUMPING WHILE REHABILITATING PUMP STATION. THIS INCLUDES ANY REQUIRED CONNECTIONS TO INFLUENT AND DISCHARGE LINES. H.U.B. WILL PROVIDE THE REQUIRED ELECTRICAL SERVICE FOR BYPASS PUMPING.
2. THE OWNER SHALL HAVE FIRST SALVAGE RIGHTS TO ALL EXISTING VALVES, PIPING AND EQUIPMENT. IF THE OWNER REJECTS SALVAGED MATERIALS, THE CONTRACTOR SHALL PROVIDE FINAL DISPOSAL OF ALL ITEMS.
3. CONTRACTOR SHALL REMOVE EXISTING PAINT FROM WALLS. WALLS INCLUDE ENTRANCE LEVEL; INTERMEDIATE LEVEL; AND PUMP LEVEL. A CLEAR SEALANT SHALL BE ADDED TO ALL BRICK INTERIOR WALLS. THE CONCRETE WALLS WILL BE COATED WITH A COLORED SEALANT APPROVED BY OWNER. STEEL BEAMS AND PIPE SHALL BE PAINTED WITH A HIGH PERFORMANCE PAINT, SEE SPECIFICATION SECTION 9901.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS BEFORE ORDERING EQUIPMENT.
5. REMOVE PEA GRAVEL FROM AROUND P.S. (WITHIN FENCED AREA) TO FIRM SOIL AND REPLACE TO ORIGINAL GRADE WITH PUG MILL MIX.
6. CONTRACTOR SHALL PRESSURE WASH AND REMOVE ALL DEBRIS FROM THE PUMP STATION WET WELL PRIOR TO PLACING STATION BACK INTO SERVICE.

PATTERN LEGEND

- EXISTING BRICK WALL
- EXISTING CUT CONCRETE

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NO.	DESCRIPTION	DATE	BY
	REVISIONS		



GRW PROJECT NO. 7716-01 CONTRACT S05-01

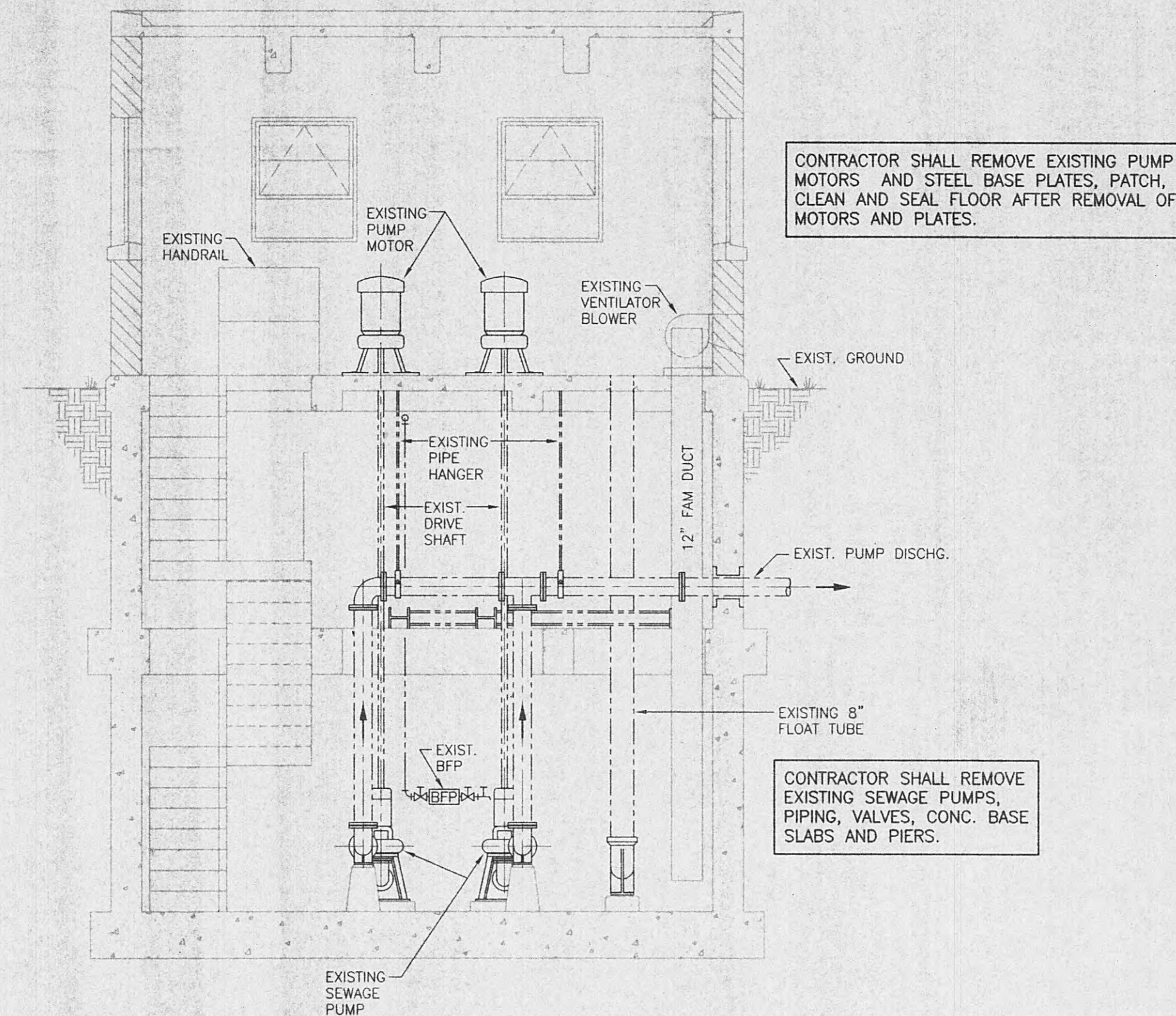
HARRIMAN UTILITY BOARD
HARRIMAN, TENNESSEE
EXISTING CHERRY STREET PUMP STATION
PLAN VIEWS

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Engineers, Architects, Planners
LEXINGTON LOUISVILLE INDIANAPOLIS
NASHVILLE KNOXVILLE

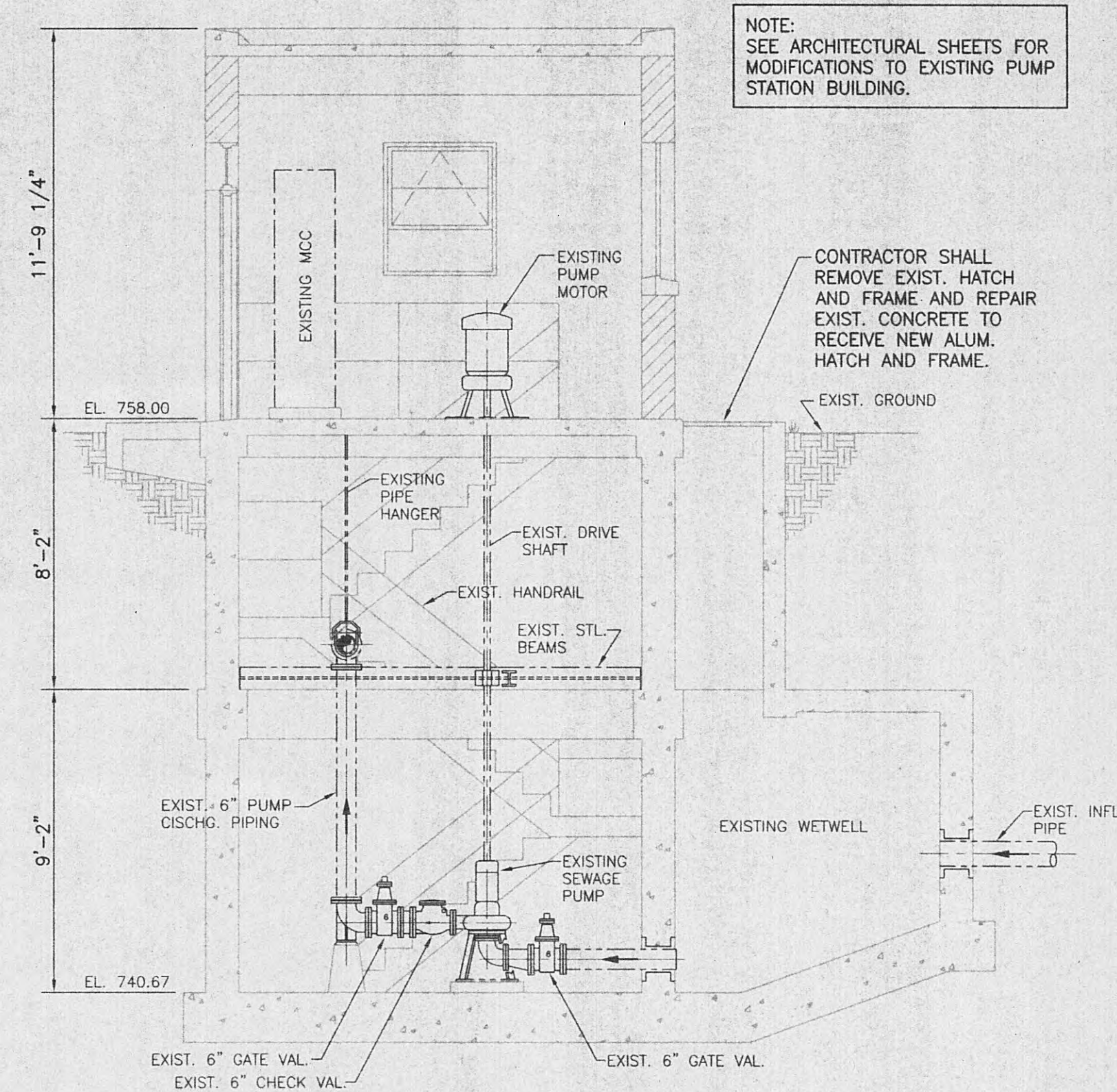
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DRAWN:	SG	SCALE:	AS NOTED
REVIEWED:	RGT	SHEET NO.	
APPROVED:	RGT		

C-2

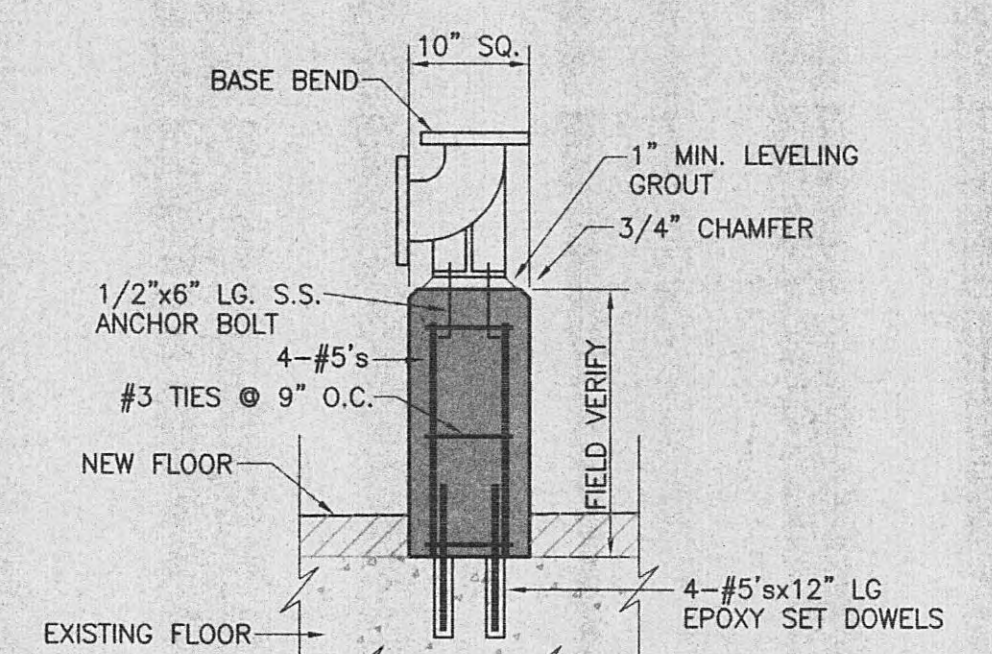
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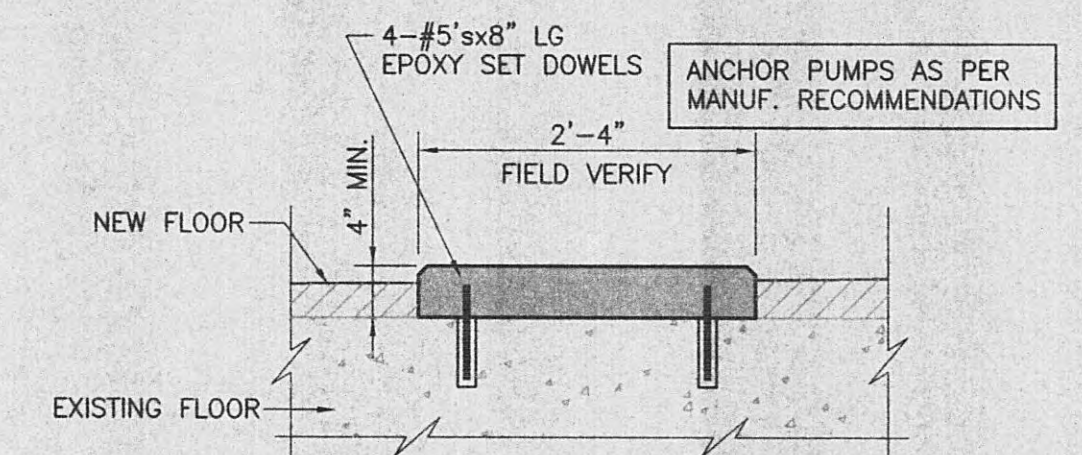
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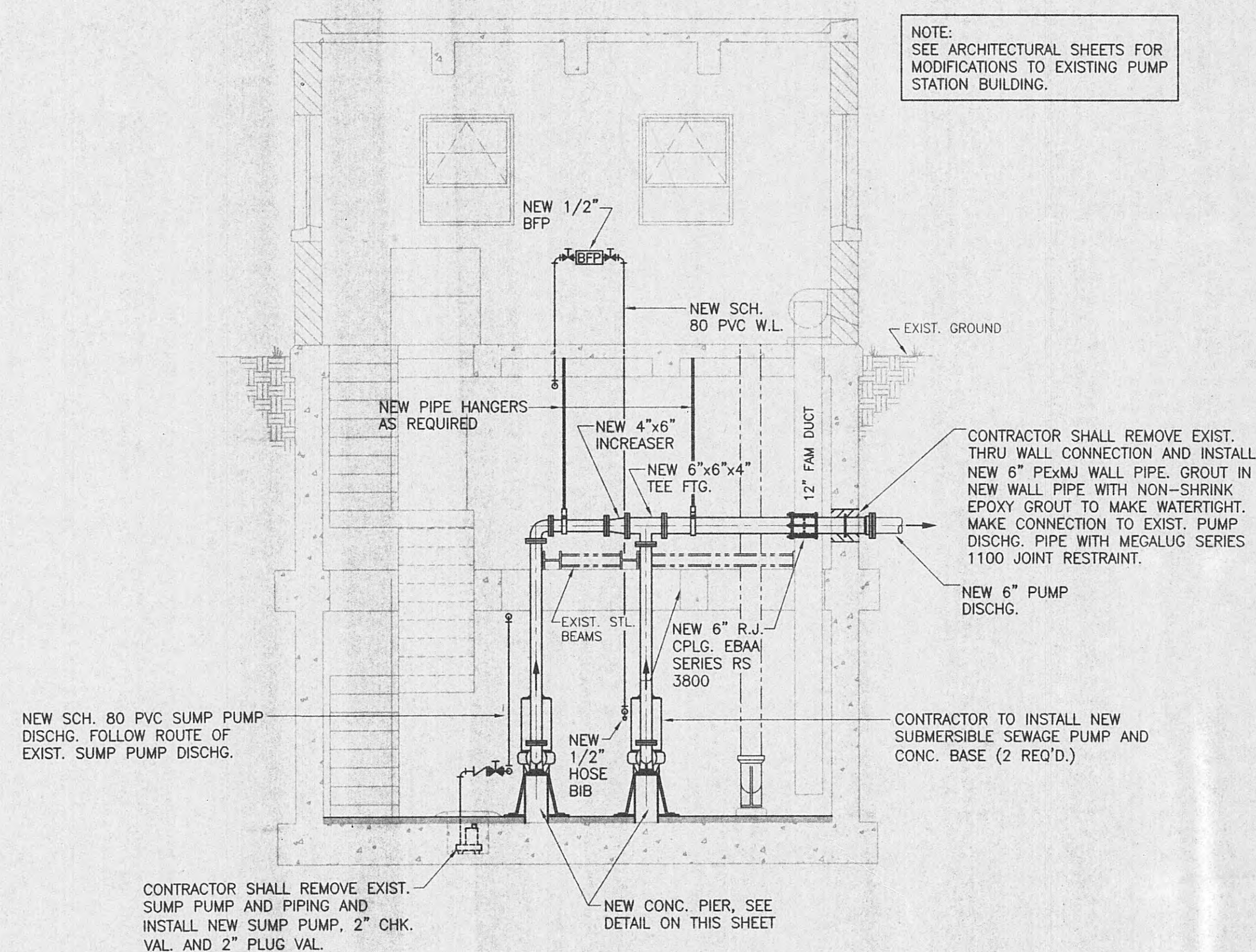
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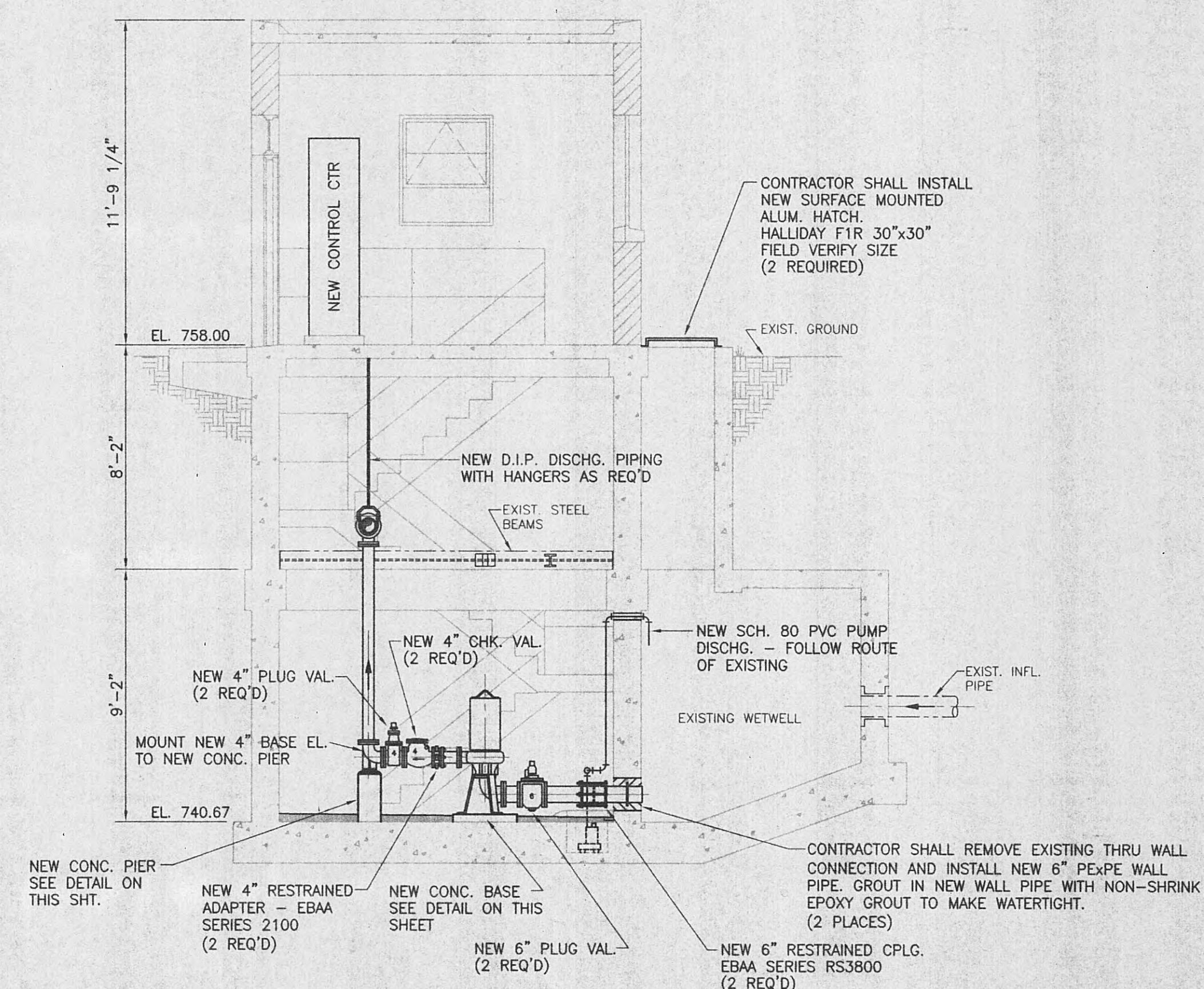
PIER DETAIL
SCALE: 3/4" = 1'-0"



PUMP PAD DETAIL
SCALE: 3/4" = 1'-0"



MODIFIED CONDITIONS - SECTION C3.2
SCALE: 1/4" = 1'-0"



MODIFIED CONDITIONS - SECTION C3.1
SCALE: 1/4" = 1'-0"

PATTERN LEGEND

- EXISTING BRICK WALL
- EXISTING CUT CONCRETE

REVISIONS			
NO.	DESCRIPTION	DATE	BY



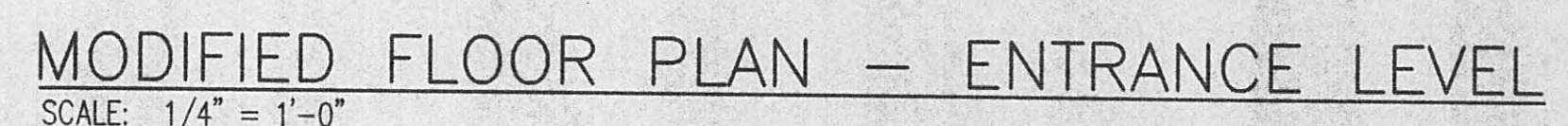
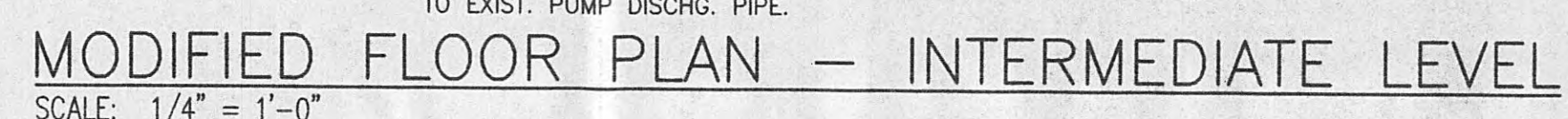
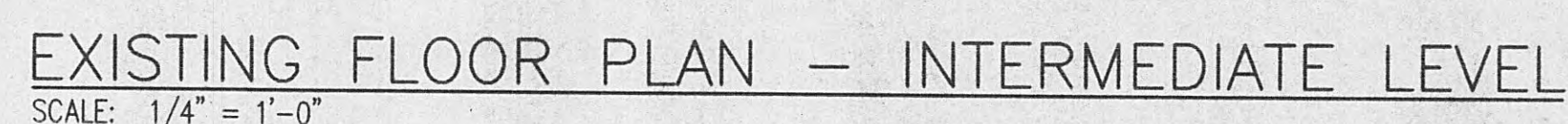
GRW PROJECT NO. 7716-01 CONTRACT S05-01

HARRIMAN UTILITY BOARD
HARRIMAN, TENNESSEE
EXISTING CHERRY STREET P.S.
SECTIONAL VIEWS

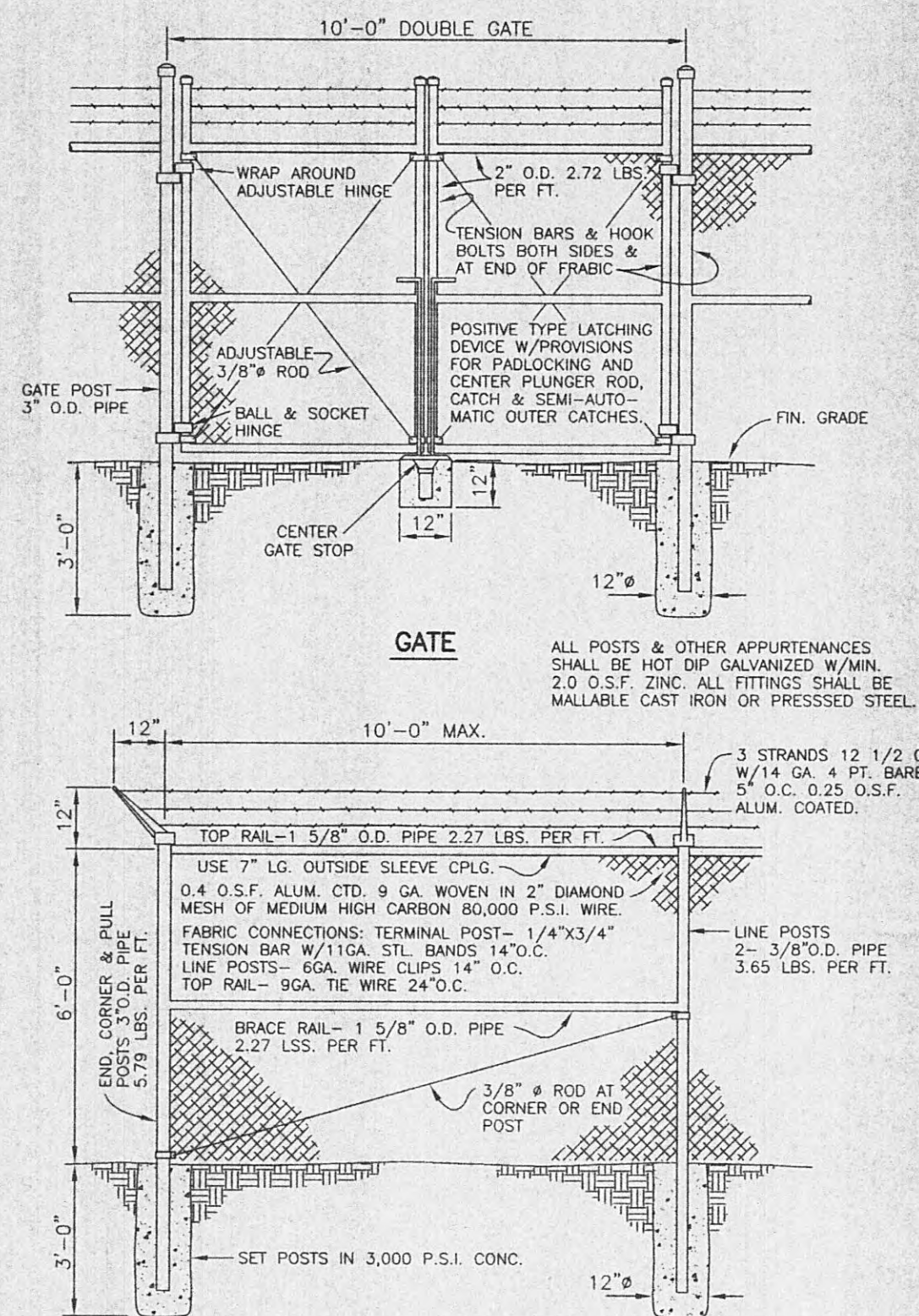
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DRAWN: SC	SCALE: AS NOTED
REVIEWED: RGT	SHEET NO.
APPROVED: RGT	C-3

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LEXINGTON LOUISVILLE INDIANAPOLIS
NASHVILLE KNOXVILLE

3-24-2005

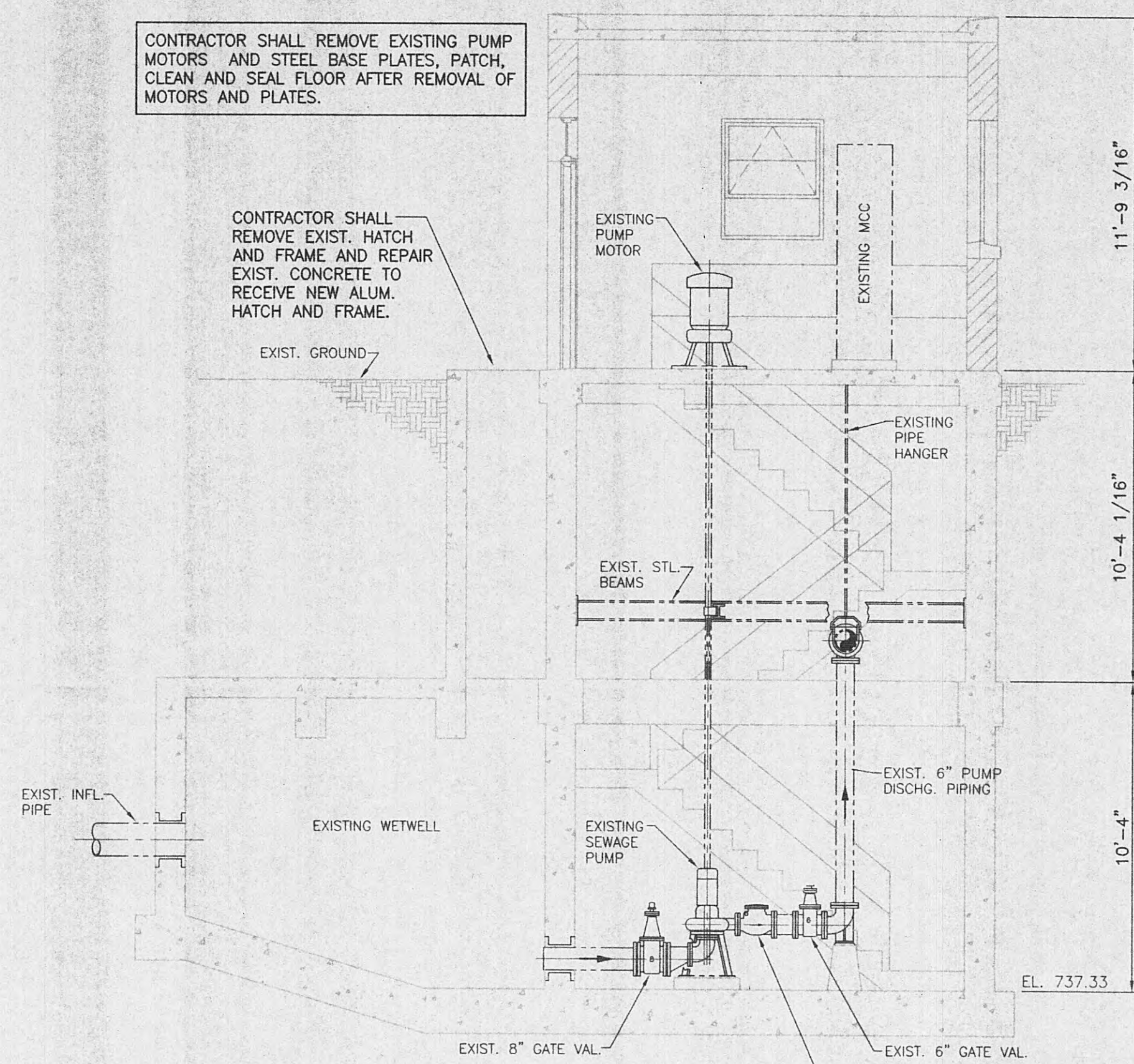


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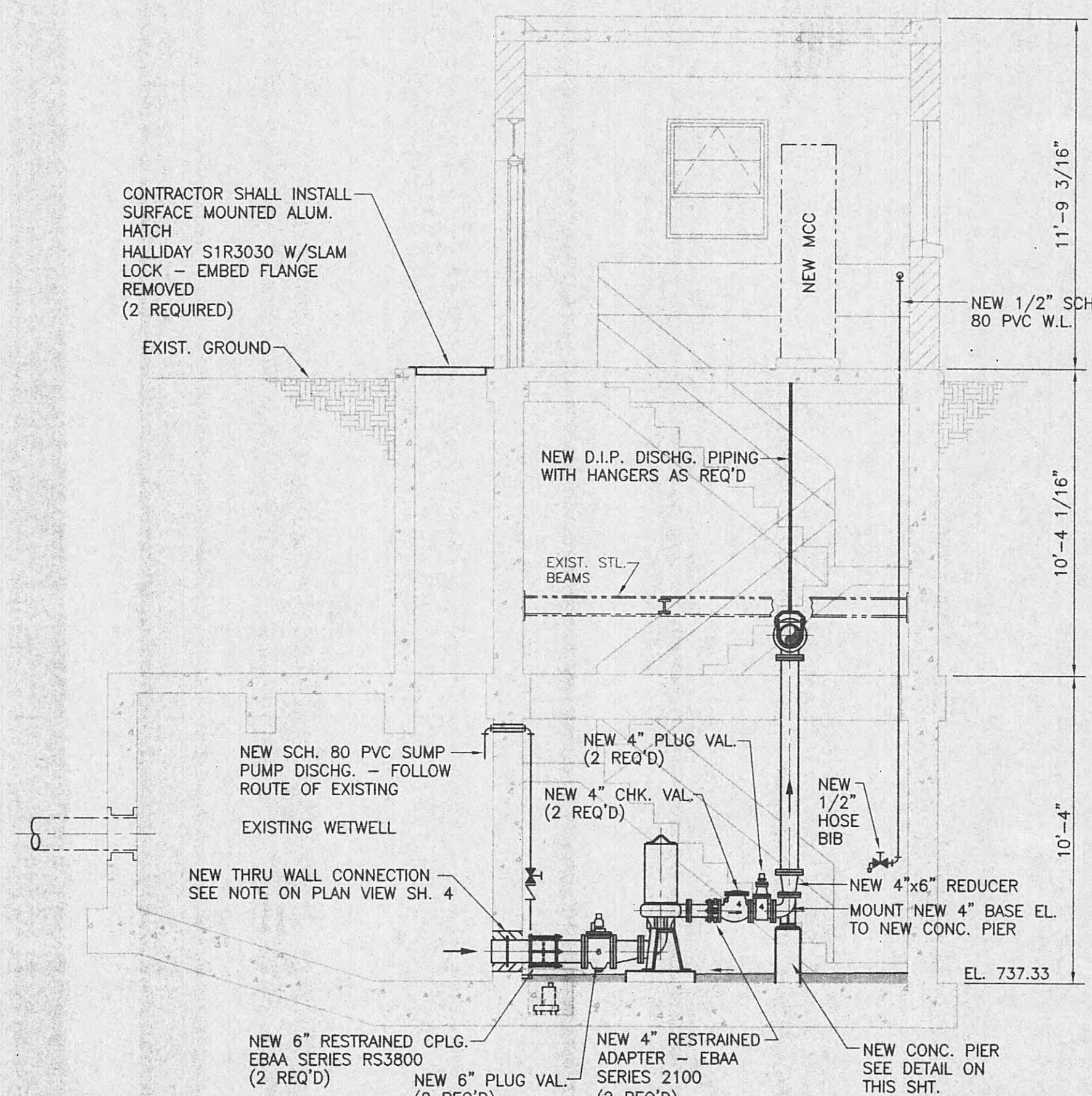


CONTRACTOR SHALL REMOVE EXISTING PUMP MOTORS AND STEEL BASE PLATES, PATCH, CLEAN AND SEAL FLOOR AFTER REMOVAL OF MOTORS AND PLATES.

CONTRACTOR SHALL REMOVE EXIST. HATCH AND FRAME AND REPAIR EXIST. CONCRETE TO RECEIVE NEW ALUM. HATCH AND FRAME.



EXISTING CONDITIONS - SECTION C5.1 C2
SCALE: 1/4" = 1'-0"



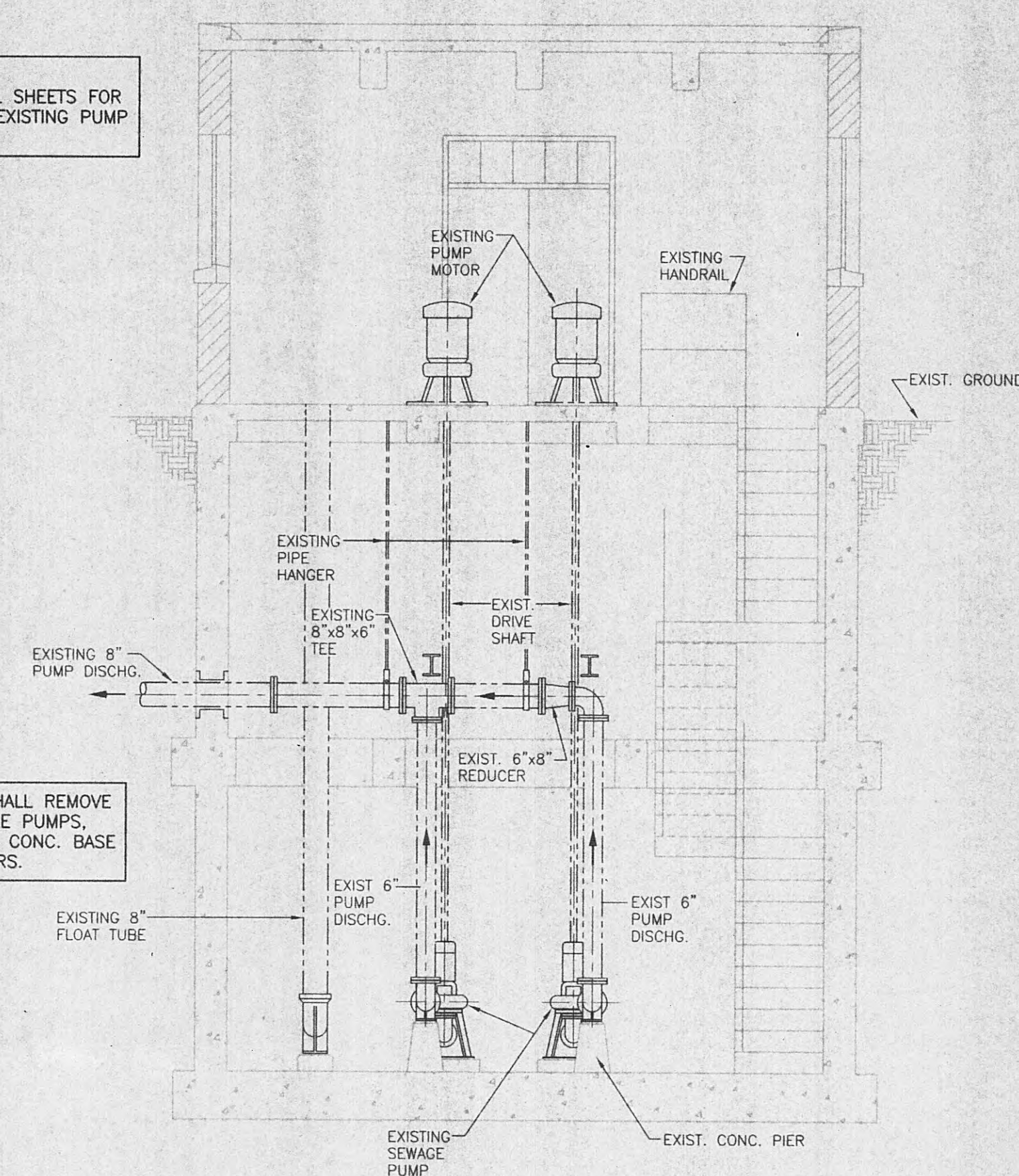
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PATTERN LEGEND

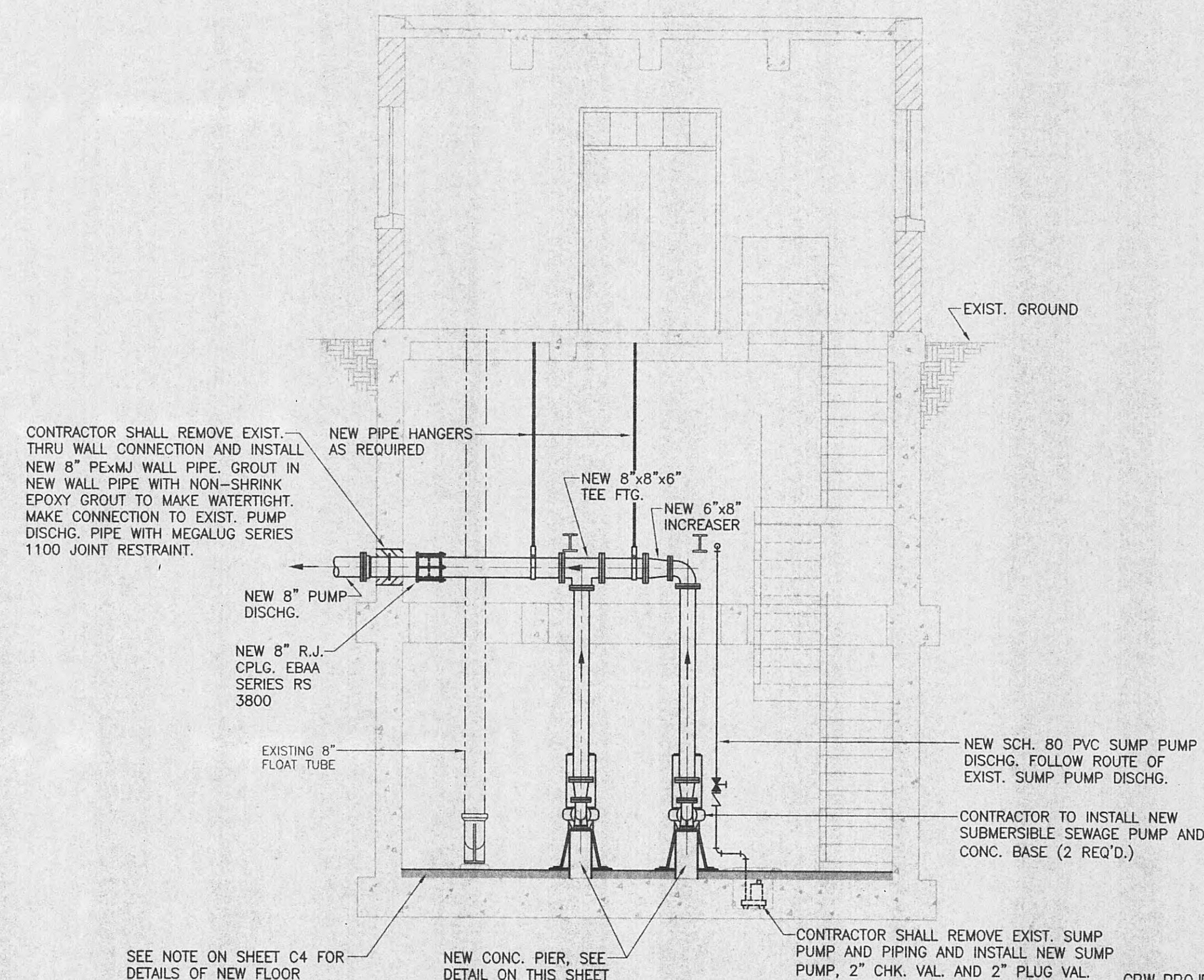
- EXISTING BRICK WALL
- EXISTING CUT CONCRETE

NOTE: SEE ARCHITECTURAL SHEETS FOR MODIFICATIONS TO EXISTING PUMP STATION BUILDING.

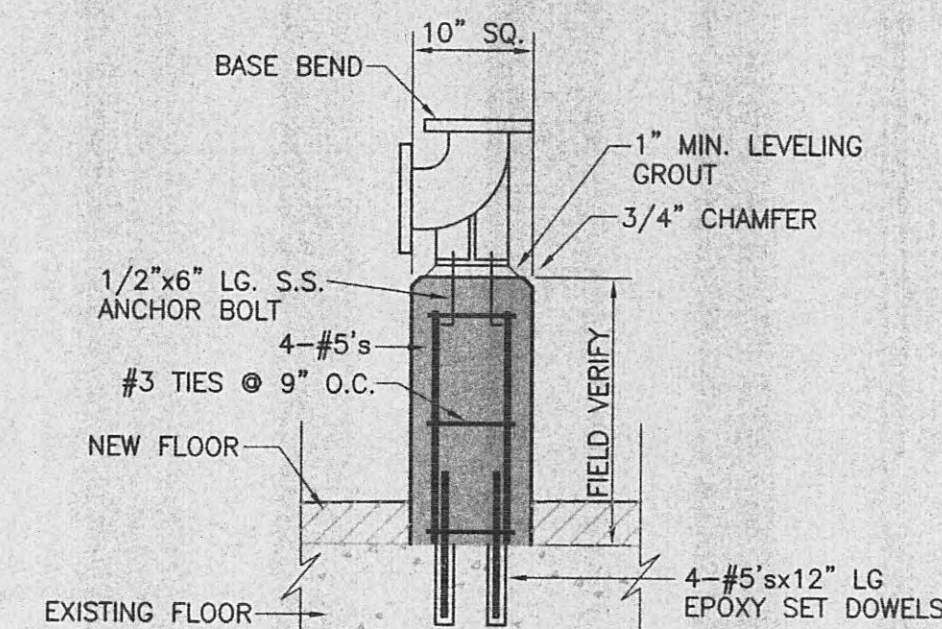
CONTRACTOR SHALL REMOVE EXISTING SEWAGE PUMPS, PIPING, VALVES, CONC. BASE SLABS AND PIERS.



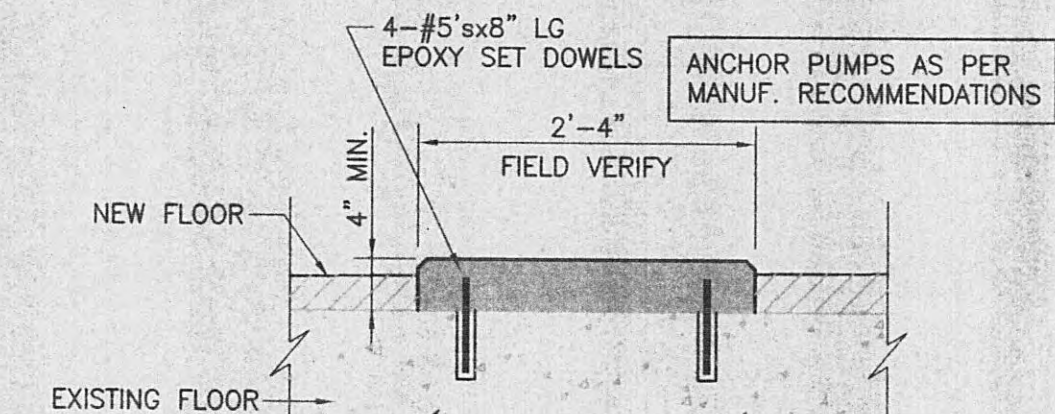
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SCALE: 1/4" = 1'-0"



MODIFIED CONDITIONS - SECTION C5.2 C4
SCALE: 1/4" = 1'-0"



PIER DETAIL
SCALE: 3/4" = 1'-0"



PUMP PAD DETAIL
SCALE: 3/4" = 1'-0"

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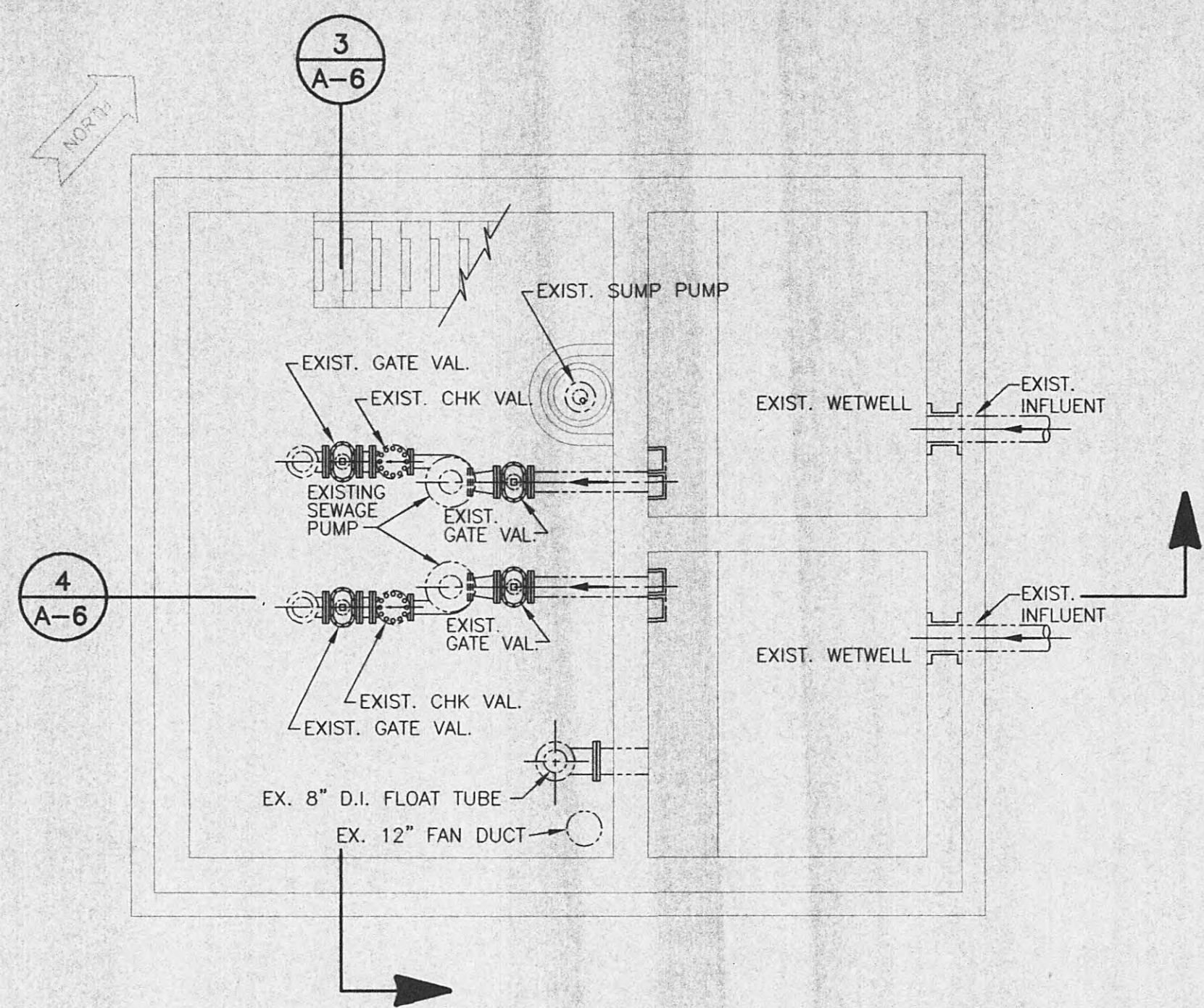
GRW PROJECT NO. 7716-01 CONTRACT S05-01

HARRIMAN UTILITY BOARD
HARRIMAN, TENNESSEE
EXISTING WALNUT HILL P.S.
SECTIONAL VIEWS

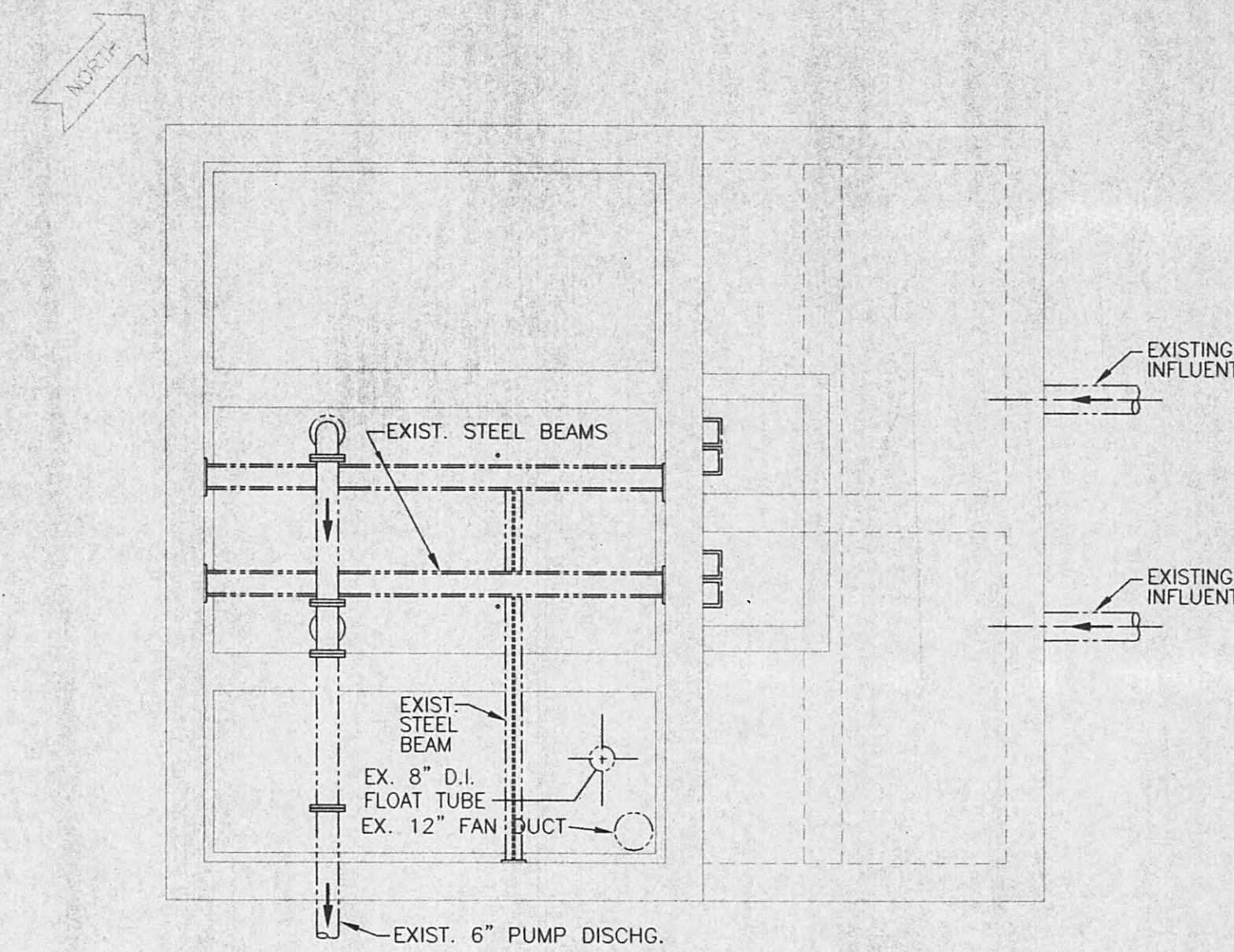
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REVIEWED: RGT	SHEET NO. C-5
APPROVED: RGT	

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NASHVILLE KNOXVILLE

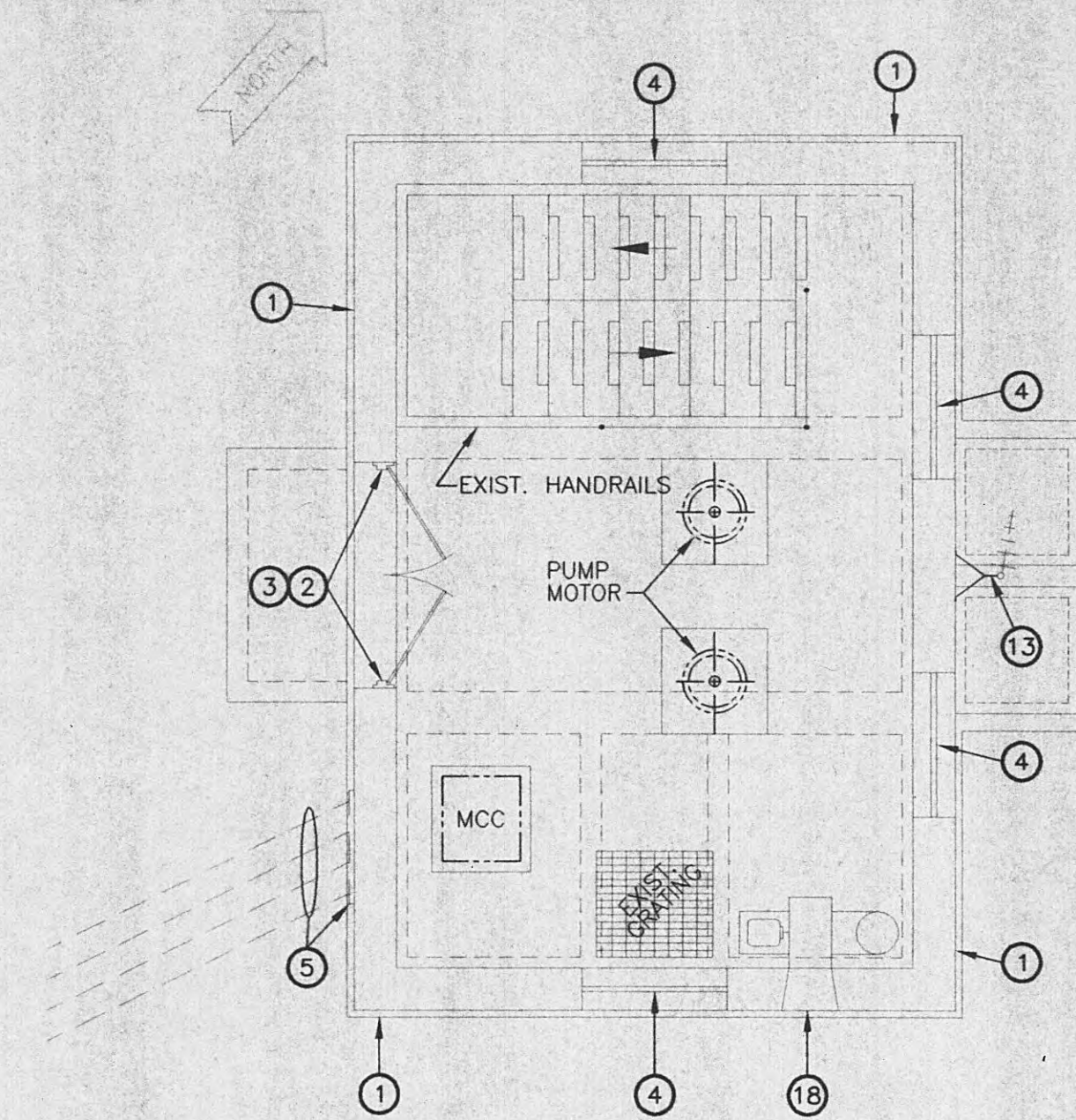
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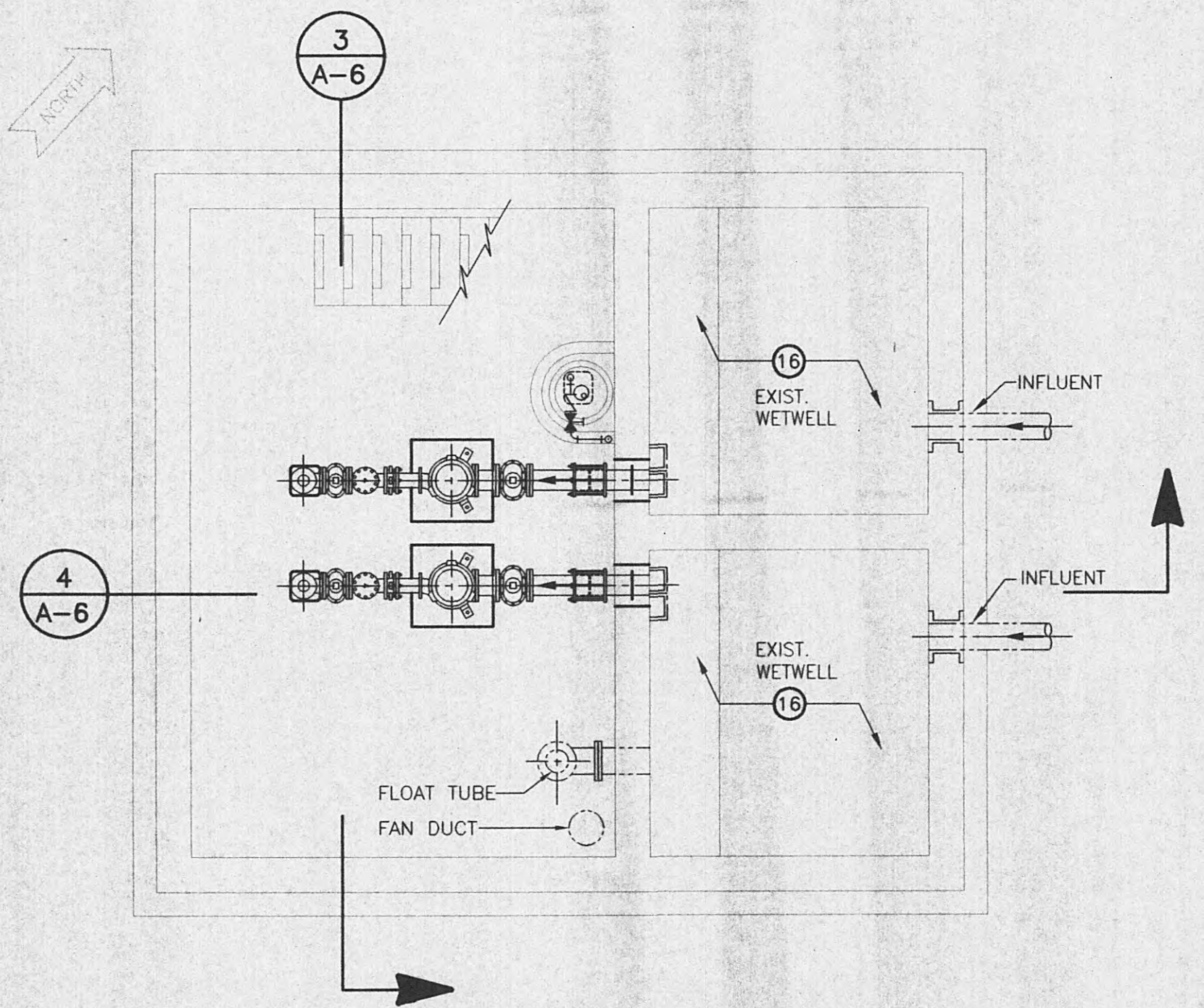
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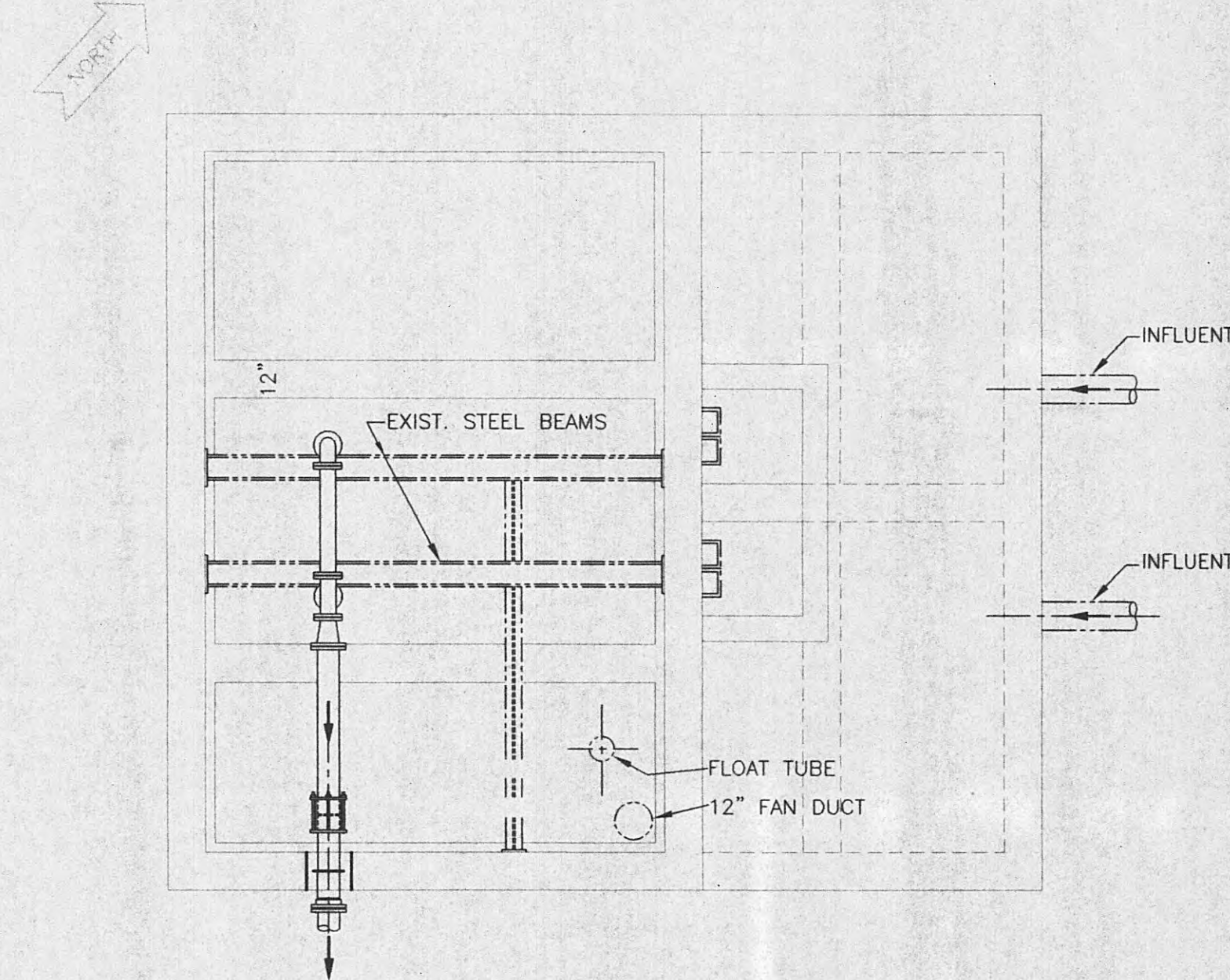
EXISTING FLOOR PLAN - INTERMEDIATE LEVEL (2)
SCALE: 1/4" = 1'-0"



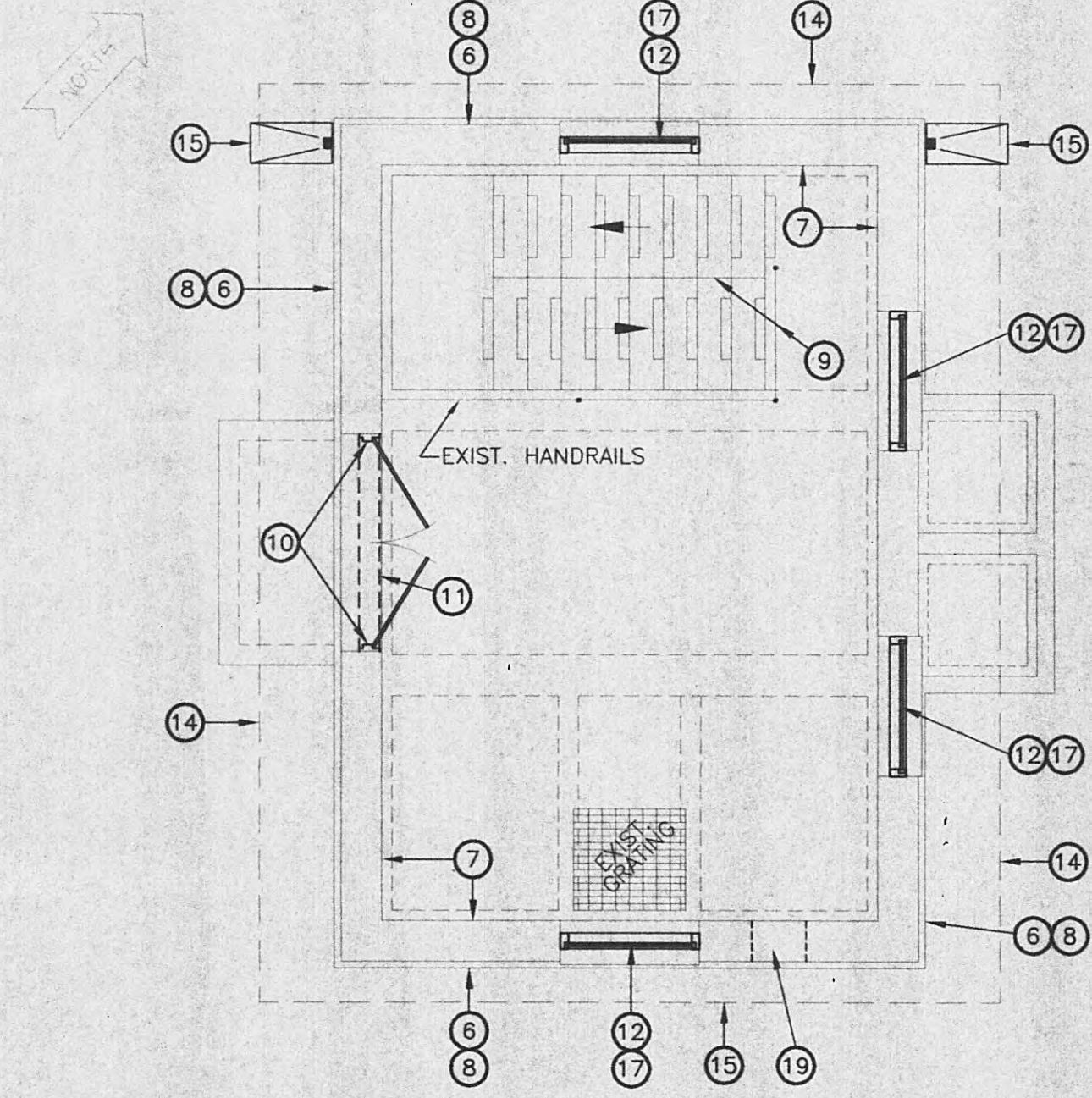
DEMOLITION FLOOR PLAN - ENTRANCE LEVEL (3)
SCALE: 1/4" = 1'-0"



NEW WORK FLOOR PLAN - PUMP LEVEL (4)
SCALE: 1/4" = 1'-0"



NEW WORK FLOOR PLAN - INTERMEDIATE LEVEL (5)
SCALE: 1/4" = 1'-0"



NEW WORK FLOOR PLAN - ENTRANCE LEVEL (6)
SCALE: 1/4" = 1'-0"

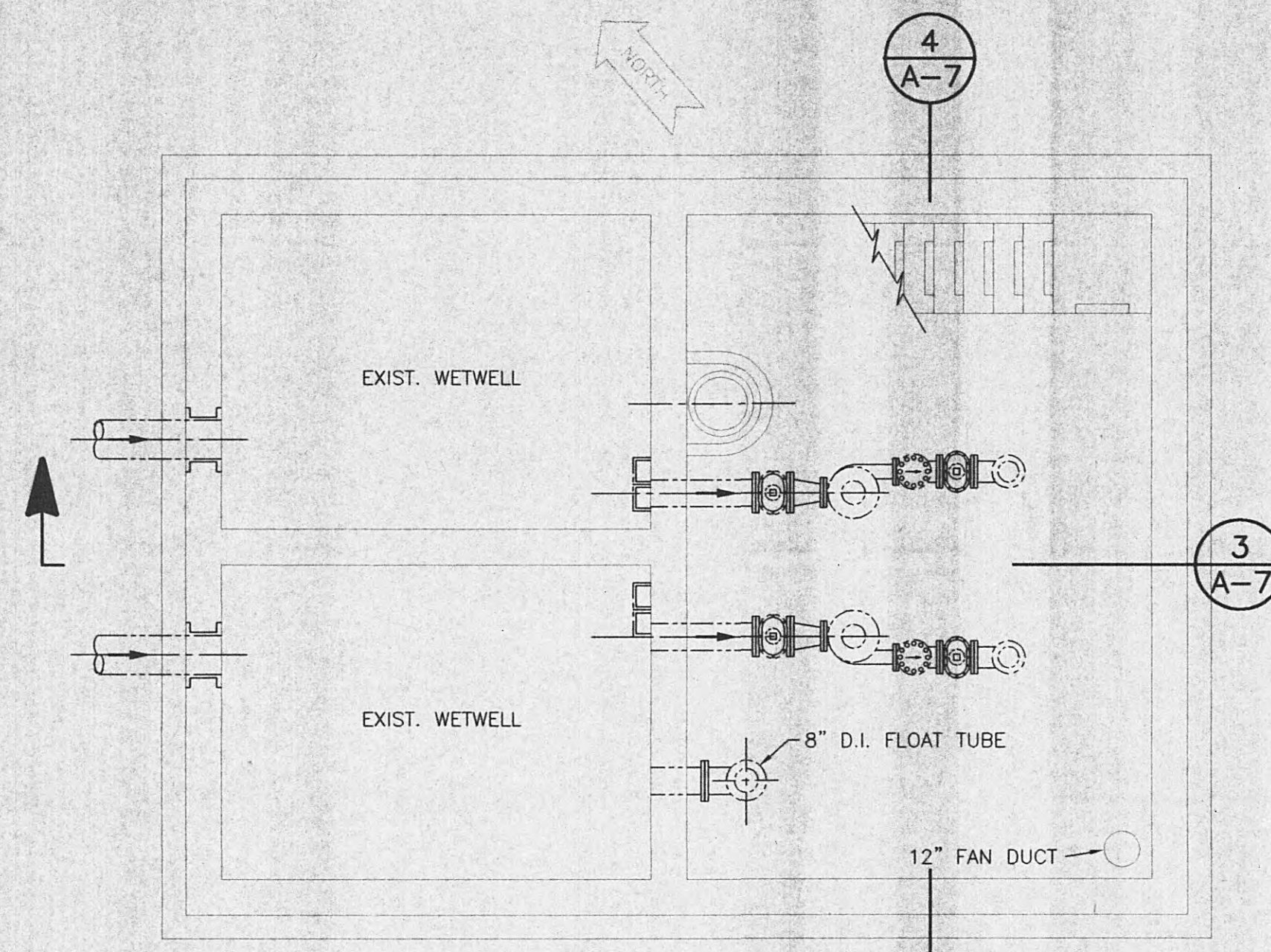
KEYNOTES:

- 1 EXISTING BRICK COMPOSITE WALL.
- 2 EXISTING DOOR AND FRAME TO BE REMOVED.
- 3 EXISTING TRANSOM ABOVE DOOR TO BE REMOVED.
- 4 EXISTING WINDOWS TO BE REMOVED.
- 5 EXISTING ELECTRICAL WEATHERHEAD AND LINES TO BE REMOVED FROM EXTERIOR FACE OF BUILDING AND LINES TO BE REROUTED (SEE ELECTRICAL SHEETS FOR INFO).
- 6 EXISTING EXTERIOR WALLS TO BE PRESSURE WASHED AND SEALER APPLIED.
- 7 EXISTING INTERIOR WALLS AND CEILINGS TO BE PRESSURE WASHED AND PAINTED -PATCH ALL HOLES WHERE EQUIPMENT HAS BEEN REMOVED (TYPICAL ALL LEVELS).
- 8 ALL CRACKS IN MORTAR JOINTS TO BE REPOINTED
- 9 EXISTING HANDRAIL TO BE RE-ANCHORED AS REQUIRED, WHERE LOOSE ALL LEVELS -PAINT
- 10 PROVIDE NEW OUT SWINGING DOORS WITH NEW FRAME. VERIFY MASONRY OPENING, (PAINT) -SEE DETAIL 4/A-8.
- 11 REPLACE TRANSOM WITH HOLLOW METAL PANEL -PAINT TRANSOM, AND FLASHING TO MATCH DOOR (FIELD VERIFY SIZE AND CONFIGURATION) -SEE DETAIL 4/A-8.
- 12 INSTALL NEW WINDOWS (FIELD VERIFY SIZE AND CONFIGURATION) -SEE DETAIL 3/A-8.
- 13 M.C. ANTENNA TO BE RELOCATED TO ALLOW FOR NEW ROOF SYSTEM -SEE ELECTRICAL SHEETS.
- 14 NEW ROOF LINE ABOVE.
- 15 NEW 4"x4" DOWNSPOUT AND SPLASHBLOCK.
- 16 CLEAN OUT EXISTING WET WELL AFTER COMPLETION OF ALL CONSTRUCTION.
- 17 COVER ALL WINDOWS WITH WINDOW GUARD -SEE DTL. 5/A-8
- 18 EXISTING LOUVER TO BE REMOVED -SEE MECHANICAL SHEETS.
- 19 NEW BRICK INFILL AT REMOVED LOUVER LOCATION -MATCH MATERIALS AND METHODS OF EXISTING BRICK WORK.

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NO.	DESCRIPTION	DATE	BY
REVISIONS			



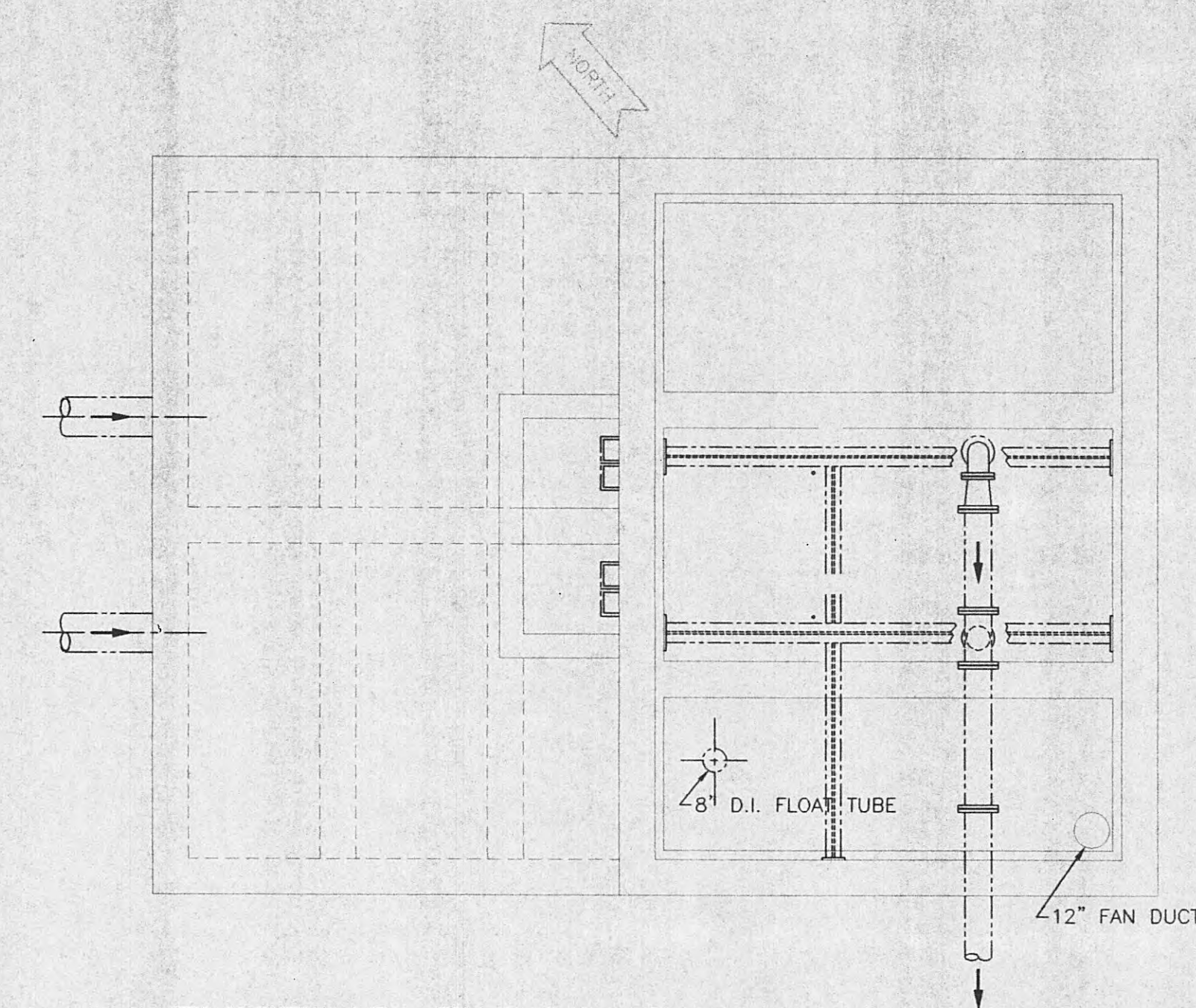
DESIGNED: JCP	DATE: JANUARY, 2005
DRAWN: STAFF	SCALE: AS NOTED
REVIEWED: JCP	SHEET NO. A-1
APPROVED: JCP	



EXISTING FLOOR PLAN
— PUMP LEVEL

SCALE: 1/4" = 1'-0"

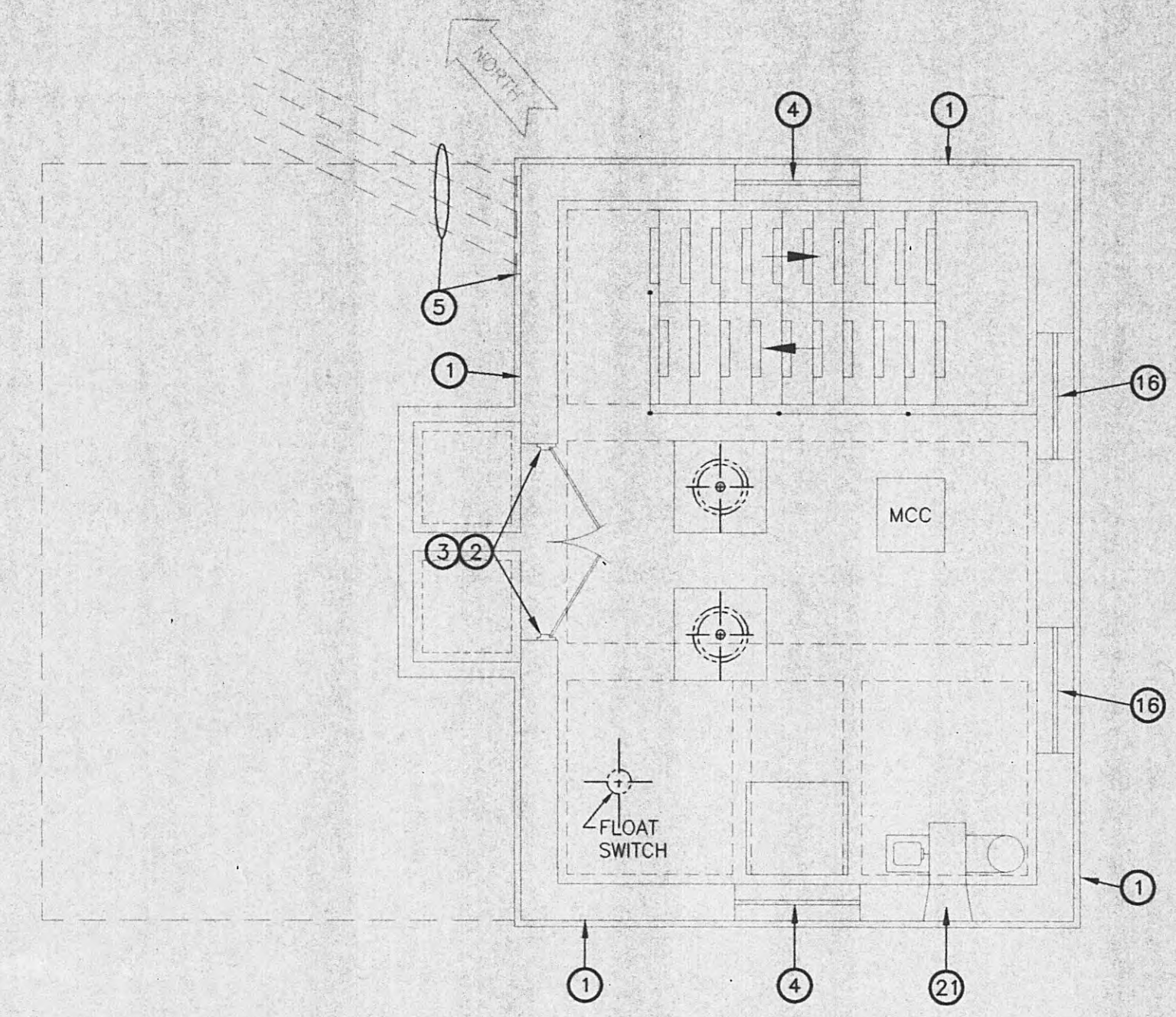
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A-2



EXISTING FLOOR PLAN
— INTERMEDIATE LEVEL

SCALE: 1/4" = 1'-0"

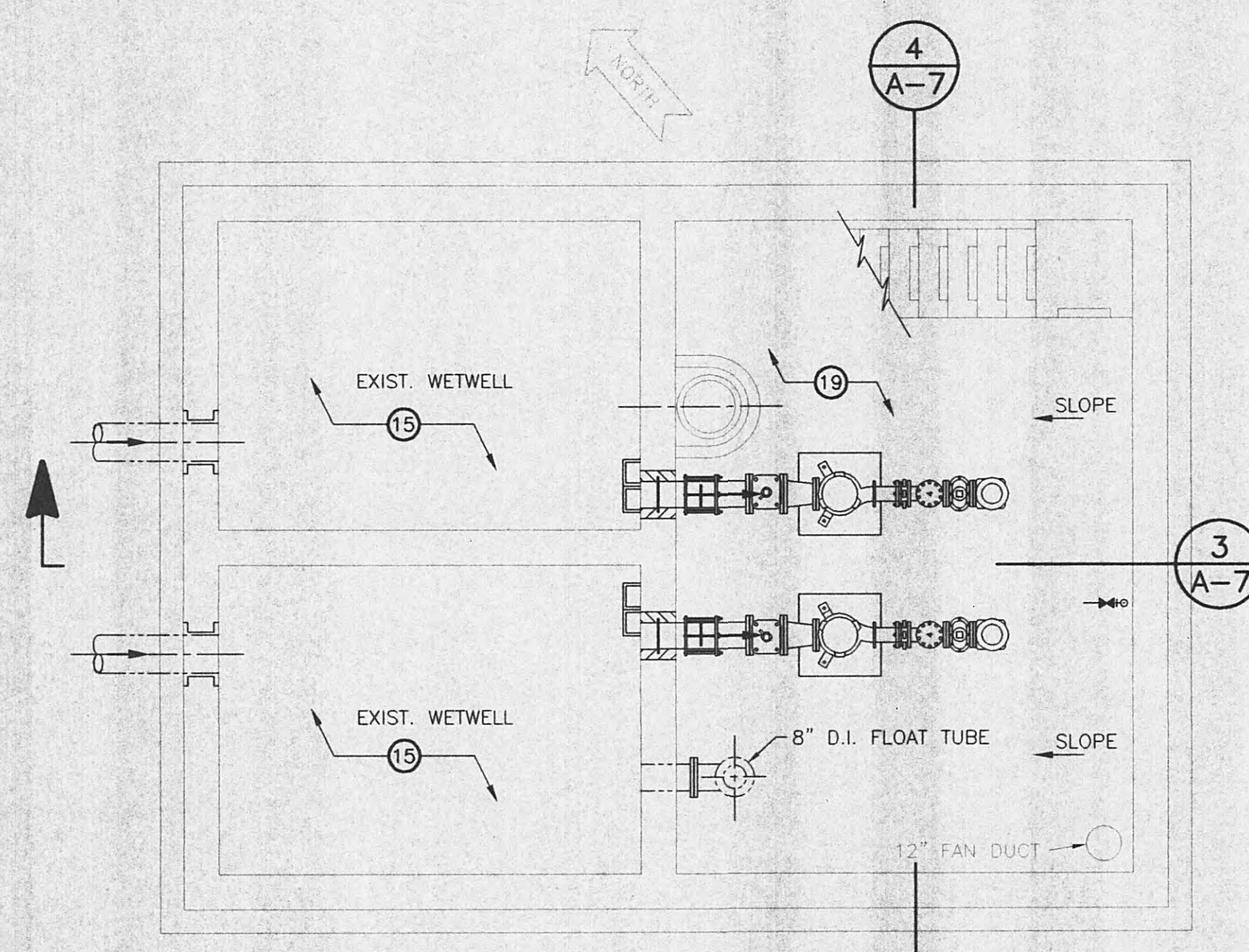
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A-2



EXISTING FLOOR PLAN
— ENTRANCE LEVEL

SCALE: 1/4" = 1'-0"

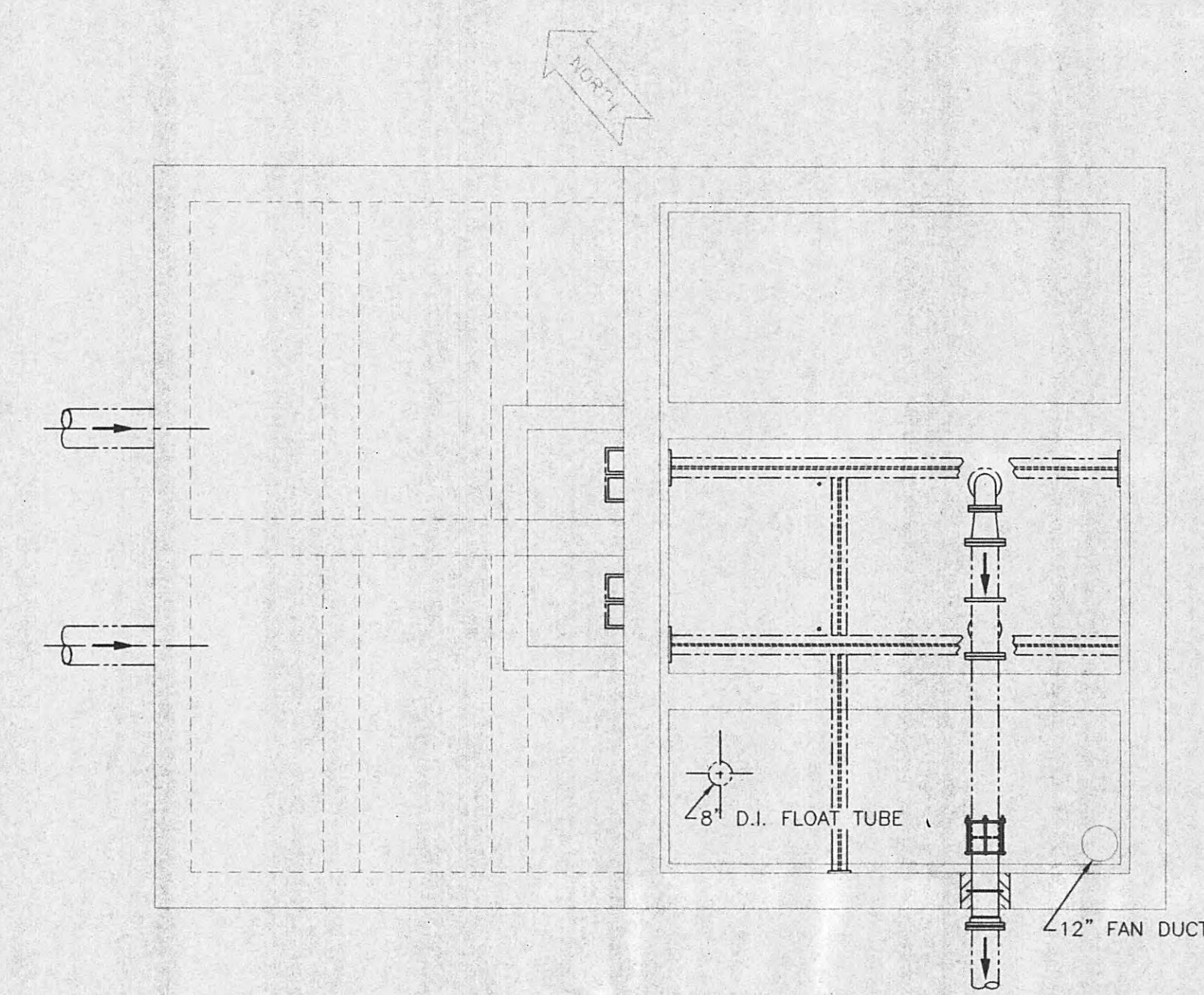
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A-2



NEW WORK FLOOR PLAN
— PUMP LEVEL

SCALE: 1/4" = 1'-0"

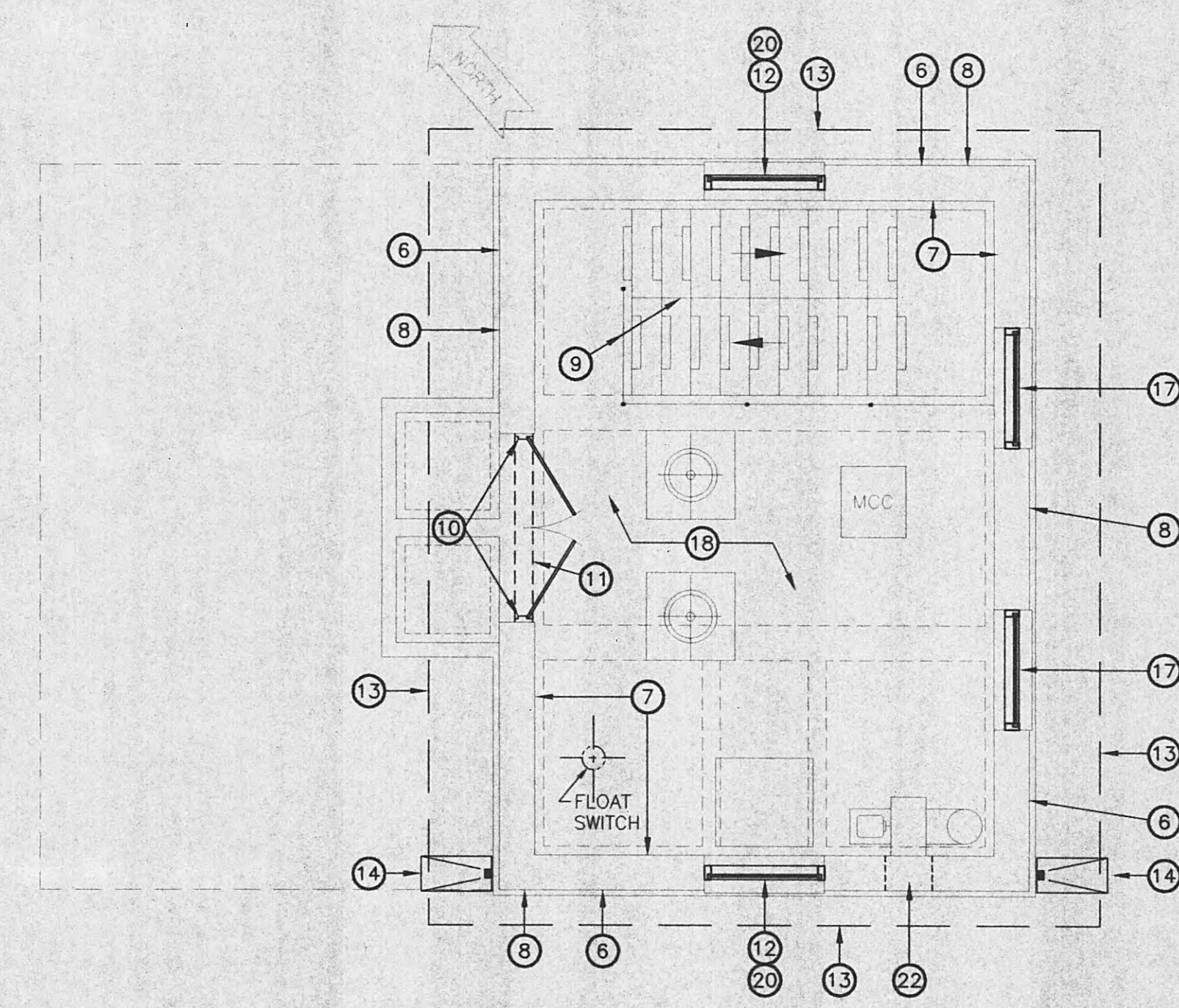
4
A-2



NEW WORK FLOOR PLAN
— INTERMEDIATE LEVEL

SCALE: 1/4" = 1'-0"

5
A-2



NEW WORK FLOOR PLAN
— ENTRANCE LEVEL

SCALE: 1/4" = 1'-0"

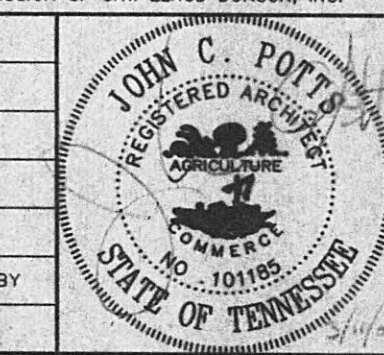
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A-2

KEYNOTES:

- 1 EXISTING BRICK COMPOSITE WALL.
- 2 EXISTING DOOR AND FRAME TO BE REMOVED.
- 3 EXISTING TRANSOM ABOVE DOOR TO BE REMOVED.
- 4 EXISTING WINDOWS TO BE REMOVED.
- 5 EXISTING ELECTRICAL WEATHERHEAD AND LINES TO BE REMOVED FROM EXTERIOR FACE OF BUILDING AND LINES TO BE REROUTED (SEE ELECTRICAL SHEETS FOR INFO).
- 6 EXISTING EXTERIOR WALLS TO BE PRESSURE WASHED AND SEALER APPLIED.
- 7 EXISTING INTERIOR WALLS AND CEILINGS TO BE PRESSURE WASHED AND PAINTED - PATCH ALL HOLES WHERE EQUIPMENT HAS BEEN REMOVED (TYPICAL ALL LEVELS).
- 8 ALL CRACKS IN MORTAR JOINTS TO BE REPOINTED.
- 9 EXISTING HANDRAIL TO BE RE-ANCHORED AS REQUIRED, WHERE LOOSE ALL LEVELS - PAINT.
- 10 PROVIDE NEW OUT SWINGING DOORS WITH NEW FRAME. VERIFY MASONRY OPENING. (PAINT) - SEE DETAIL 4/A-8.
- 11 REPLACE TRANSOM WITH HOLLOW METAL PANEL - PAINT TRANSOM, AND FLASHING TO MATCH DOOR (FIELD VERIFY SIZE AND CONFIGURATION) - SEE DETAIL 4/A-8.
- 12 INSTALL NEW WINDOWS (FIELD VERIFY SIZE AND CONFIGURATION) - SEE DETAIL 3/A-8.
- 13 NEW ROOF LINE ABOVE.
- 14 NEW 4"x4" DOWNSPOUT AND SPLASHBLOCK.
- 15 CLEAN OUT EXISTING WET WELL AFTER COMPLETION OF ALL CONSTRUCTION.
- 16 REMOVE EXISTING BRICK INFILL AT REAR WINDOWS.
- 17 APPLY NEW BRICK INFILL AT REAR WINDOWS AND BLEND INTO EXISTING BRICK (MATCH MATERIAL AND METHODS OF ORIGINAL FLUSH BRICK WALL).
- 18 PAINT NEW PIPING AND EXPOSED STRUCTURAL STEEL (TYPICAL ALL LEVELS).
- 19 REPAIR CONCRETE AT STAIRWELL CEILING, ON THE BOTTOM FLOOR (ABOVE EXISTING SUMP PUMP).
- 20 COVER ALL WINDOWS WITH WINDOW GUARD - SEE DTL. 5/A-8.
- 21 EXISTING LOUVER TO BE REMOVED - SEE MECHANICAL SHEETS.
- 22 NEW BRICK INFILL AT REMOVED LOUVER LOCATION - MATCH MATERIALS AND METHODS OF EXISTING BRICK WORK.

Fri, 11 Mar 2005 - 12:24pm
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GRW PROJECT NO. 7716-01		CONTRACT S05-01	
HARRIMAN UTILITY BOARD HARRIMAN, TENNESSEE WALNUT HILL PUMP STATION DEMO & NEW WORK PLAN VIEWS			
 GRW Elrod Dunson, Inc. Engineers, Architects, Planners LEXINGTON LOUISVILLE INDIANAPOLIS NASHVILLE KNOXVILLE	DESIGNED: JCP	DATE: JANUARY, 2005	A-2
	DRAWN: STAFF	SCALE: AS NOTED	
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