EXHIBIT A

To

MSW FLOOR REPAIRS AT THE MID-CONNECTICUT WASTE PROCESSING FACILITY AGREEMENT

PLANS

PLANS

The following plans are hereby incorporated by reference and made a part of this Agreement as if such plans had been attached in their entirety to this Agreement:

"Connecticut Resources Recovery Authority Mid-Connecticut Project Waste Processing Facility MSW Floor Repair, Maxim Road, Hartford, Connecticut. CRRA Contract No. 084154 October 2007, URS Corporation AES."

CONNECTICUT RESOURCES RECOVERY AUTHORITY

MID-CONNECTICUT PROJECT
WASTE PROCESSING FACILITY
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CONNECTICUT

CRRA CONTRACT NO. 084154

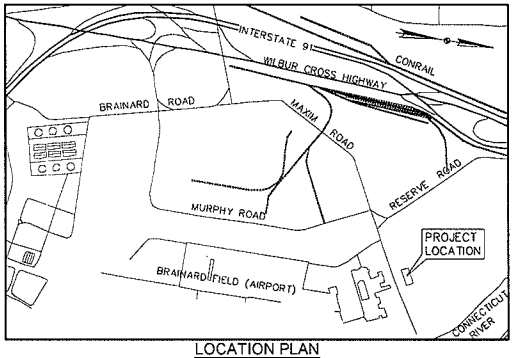
OCTOBER, 2007

URS

URS CORPORATION AES

500 ENTERPRISE DRIVE
ROCKY HILL, CT. 06067
1-(860)-529-8882

URS PROJECT NO. 36937394



LOCATION PLAN
NOT TO SCALE

LIST OF DRAWINGS

STRUCTURAL DESIGN DATA AND GENERAL NOTES

BUILDING CODE 1996 BOCA AND 1999 CONNECTICUT SUPPLEMENT
WITH THE 2000 AMENDMENTS DESIGN LIVE LOADS

1. LIVE LOAD:

LIVE LOAD (EQUIPMENT LOAD)	500 PSF
IMPORTANCE FACTOR (I)	1.0

MATERIAL STRENGTHS DESIGN

1. CONCRETE (Fc @ 28 DAYS)

ALL CONCRETE UNO	8,000 PSI
SLAB ON GRADE	8,000 PSI

2. REINFORCING STEEL (Fy)

REBAR (GRADE 60) (ASTM 6115)	60,000 PSI
WELDED WIRE FABRIC (ASTM A-185)	60,000 PSI

3. STRUCTURAL STEEL (Fy)

STEEL PLATES (UNO) (ASTM 588)	50,000 PSI

GENERAL NOTES

1. FOR ADDITIONAL REQUIREMENTS, SEE SPECIFICATIONS, CONTRACT DOCUMENTS (DRAWINGS AND SPECIFICATIONS) SHALL BE USED AND COORDINATED BY THE CONTRACTOR IN CONJUNCTION WITH THE SHOP DRAWINGS AND OTHER SUBMITTALS, AND THE SUBSURFACE/ GEOTECHNICAL DATA.

2. CONTRACTOR SHALL VERIFY EXISTING FIELD CONDITIONS PRIOR TO COMMENCING WORK. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN EXISTING CONDITION AND CONTRACT DOCUMENTS.

3. THE CONTRACTOR PRIOR TO SUBMITTING THE SHOP DRAWINGS FOR THE ENGINEER'S REVIEW, SHALL PERFORM A CHECK OF THE DRAWINGS AND STAMP THE SHOP DRAWINGS "REVIEWED". NO FABRICATION OR DELIVERY OF MATERIAL NOT REQUIRING FABRICATION WILL BE ALLOWED UNLESS SPECIFIC AUTHORIZATION HAS BEEN RECEIVED BY CRRA. SHOP DRAWINGS SUBMITTED TO THE ENGINEER WITHOUT FIRST BEING STAMPED "REVIEWED" BY THE GENERAL CONTRACTOR SHALL BE RETURNED WITHOUT BEING REVIEWED BY THE ENGINEER. REVIEW OF SHOP DRAWINGS BY THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR FROM CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

4. CONTRACTOR SHALL STRICTLY ADHERE TO ALL APPLICABLE SAFETY REGULATIONS INCLUDING BUT NOT LIMITED TO OSHA REQUIREMENTS. WHILE PERFORMING WORK, CONTRACTOR IS RESPONSIBLE FOR METHOD OF CONSTRUCTION. PROVIDE SHORING, TEMPORARY TIES, TEMPORARY SUPPORTS AND BRACING WHERE NECESSARY UNTIL WORK IS COMPLETE. MAKE FINAL FIT TIGHT TO ENSURE PROPER LOAD TRANSFER.

5. CONSTRUCTION ACTIVITIES WILL TAKE PLACE WHILE THE FACILITY REMAINS IN OPERATION. CONSTRUCTION PHASING ACTIVITIES SHALL BE COORDINATED WITH OWNER (CRRA) AND OPERATOR (MDC) AS SHOWN AND SPECIFIED. CONSTRUCTION PHASING SHALL NOT BE MODIFIED WITHOUT OWNER'S (CRRA) PRIOR WRITTEN APPROVAL.

6. PROVIDE TEMPORARY CONSTRUCTION BARRIERS AROUND PERIMETER OF WORK CONSTRUCTION AS SHOWN AND SPECIFIED.

DEMOLITION NOTES

1. TWO WORKING DAYS PRIOR TO ANY DEMOLITION OR EXCAVATION WORK THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" AT 1-800-922-4455.

2. AT LIMITS OF REMOVAL, EXISTING CONCRETE SLAB SHALL BE SAWCUT TO AN 1 INCH DEPTH TO DELINEATE SLAB REMOVAL AREA PRIOR TO ANY DEMOLITION OF THE EXISTING CONCRETE SLAB. CONTRACTOR SHALL DISPOSE AF ALL DEMOLITION MATERIAL.

CONCRETE

1. ALL CONCRETE WORK SHALL BE IN COMPLIANCE WITH THE SPECIFICATIONS AND WITH THE LATEST EDITION OF THE BUILDING CODE REQUIREMENTS ACI 318.

2. BAR PLACEMENT SHALL CONFORM TO CONCRETE REINFORCING STEEL INSTITUTE'S RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS.

3. REINFORCING BARS SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST ACI (SP-66) MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315).

4. THE MINIMUM CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT, UNLESS NOTED OTHERWISE, SHALL BE AS FOLLOWS:

A) CONCRETE REINFORCING SHALL HAVE THE FOLLOWING MINIMUM PROTECTIVE COVER (UNLESS NOTED OTHERWISE):

CONCRETE POURED TO EARTH OR GROUND	3"
CONCRETE EXPOSED TO EARTH OR WEATHER	
#6 THROUGH #18 BARS	2"
#5 BAR, W31, OR D31 WIRE AND SMALLER	1 1/2"
CONCRETE WITH INTERIOR EXPOSURE:	
SLABS, WALLS, JOISTS	
#14 AND #18 BARS	1 1/2"
#11 BAR AND SMALLER	3/4"
BEAMS, COLUMNS:	
PRIMARY REINFORCEMENT, TIES AND SPIRALS	1 1/2"

5. REINFORCING BARS MARKED CONTINUOUS SHALL BE LAPPED A MINIMUM OF 30 INCHES WELDED WIRE FABRIC SHALL BE LAPPED 6 INCHES AT THE SIDES AND ENDS.

6. PROVIDE AND SHOW ON SHOP DRAWINGS THE NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION. MINIMUM REQUIREMENTS SHALL BE: HIGH CHAIRS, 4'-0" OC WITH CONTINUOUS #5 SUPPORT BAR; SLAB BOLSTERS, CONTINUOUS AT 3'-6" OC

7. ALL CONCRETE TO BE NORMAL WEIGHT CONCRETE UNLESS NOTED OTHERWISE.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN, 9TH EDITION.

2. ALL WELDS TO BE MADE ONLY BY WELDERS WHO HAVE BEEN QUALIFIED AS PRESCRIBED IN THE "STRUCTURAL WELDING CODE" (ANSI/AWS D1.1) OF THE AMERICAN WELDING SOCIETY.

3. ALL WELDS SHALL BE WITH E70-XX ELECTRODES. ALL WELDING SHALL BE IN ACCORDANCE WITH "AWS STRUCTURAL WELDING CODE".

STRUCTURAL SLAB

1. THE TOLERANCE ON THE THICKNESS OF THE SLAB IS +3/8", -1/4".

2. INSTALL SLAB REINFORCING AS INDICATED ON THE DRAWINGS. SUPPORT REINFORCING ON CHAIRS OR BOLSTERS.

3. PROVIDE ISOLATION JOINTS WHERE SHOWN ON DRAWINGS. INSTALL SPECIFIED JOINT FILLER AND JOINT SEALANT TO ALL ISOLATION JOINTS AS DETAILED.

4. FINISH THE SLAB SURFACE TO AN FF18/FL12 COMPOSITE TOLERANCE AND AN FF14/FL10 LOCAL TOLERANCE.

5. PROVIDE WELDED WIRE FABRIC (ASTM A-185) IN FLAT SHEETS ONLY. ROLLS ARE NOT ALLOWED. LAP 6 INCHES AT SIDES AND ENDS AND EXTEND TO WITHIN 2 INCHES OF THE SLAB EDGES.

SHOP DRAWINGS

1. THE FOLLOWING ITEMS REQUIRE SHOP DRAWINGS OR SUBMITTALS:

   A. LAYOUT AND TYPE OF TEMPORARY BARRIERS FOR MAINTENANCE & PROTECTION OF FACILITY OR OPERATION.
   B. CONCRETE MIX DESIGN.
   C. REINFORCING STEEL BARS.
   D. GROUT.
   E. BRACING/SHORING/TEMPORARY SUPPORT SYSTEMS
   F. STEEL PLATES & RAILS.
   G. BITUMINOUS CONCRETE PAVEMENT MIX.
   H. TACK COAT MATERIAL.

SEQUENCE OF CONSTRUCTION

1. INSTALL TEMPORARY CONCRETE JERSEY BARRIER CURBS AS IN STAGE I DEMOLITION (SHEET S-101). DEMOLISH CONCRETE SLAB AS INDICATED.

2. REPAIR CONCRETE SLAB, INSTALL RAILS, STEEL PLATE AND PROVIDE CONSTRUCTION JOINTS AS INDICATED AT STAGE I CONSTRUCTION (SHEET S-201).

3. REMOVE TEMPORARY CONCRETE JERSEY BARRIER CURB FROM STAGE I AND REINSTALL AT STAGE II AS SHOWN ON SHEET S-102. DEMOLISH CONRETE SLAB AS INDICATED.

4. REPAIR CONCRETE SLAB, INSTALL RAILS AND STEEL PLATE AS INDICATES IN STAGE II CONSTRUCTION AS SHOWN ON SHEET S-202.

5. REMOVE TEMPORARY CONCRETE JERSEY BARRIER CURB FROM STAGE II AND REINSTALL AT STAGE III AS SHOWN ON SHEET S-103. DEMOLISH CONCRETE SLAB AS INDICATED.

6. REPAIR CONCRETE SLAB, AS INDICATED AT STAGE III CONSTRUCTION AS SHOWN ON SHEET S-203.

7. REMOVE TEMPORARY CONCRETE JERSEY BARRIER CURB FROM STAGE III AND REINSTALL AT STAGE IV, AS SHOWN ON SHEET S-104. DEMOLISH CONCRETE FLOOR AS INDICATED.

8. REPAIR CONCRETE SLAB, AS INDICATED AT STAGE IV CONSTRUCTION AS SHOWN ON SHEET S-204.

9. REMOVE TEMPORARY CONCRETE JERSEY BARRIER CURBS FROM STAGE IV AND REINSTALL AT STAGE V AS SHOWN ON SHEET S-105. DEMOLISH CONCRETE FLOOR AS INDICATED.

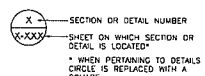
10. REMOVE TEMPORARY CONCRETE JERSEY BARRIER CURB FROM STAGE IV AND FROM THE SITE.

11. PLACE 2" BITUMINOUS CONCRETE PAVEMENT AS INDICATED ON DRAWINGS.

12. THE SEQUENCE OF CONSTRUCTION SHOWN ABOVE MAY BE VARIED WITH THE PERMISSION OF THE ENGINEER AND/OR OWNER.

STRUCTURAL ABBREVIATIONS

ADDN'L	ADDITIONAL
AGGR	AGGREGATE
ALT	ALTERNATE
AB	ANCHOR BOLT
L	ANGLE
APPROX	APPROXIMATE
AOBE	ARCHITECTURAL AS ORDERED BY THE ENGINEER
BPL	BASE PLATE
BRG	BEARING
BLKG	BLOCKING
BOT	BOTTOM
BE	BOTTOM ELEVATION
BRKT	BRACKET
BLDG	BUILDING
BL	BUILDING LINE
BFE	BOTTOM FOOTING ELEVATION
CTR	CENTER
CL	CENTER LINE
C	CENTER TO CENTER
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUE, CONTINUOUS
CONTR	CONTRACTOR
CJ	CONTROL JOINT
CS	COLUMN STRIP
COV	COVER
PL	PLATE
DL	DEAD LOAD
DET	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DIM	DIMENSION
DIST	DISTANCE
DWL	DOWEL
DWG	DRAWING
EA	EACH
EF	EACH FACE
EW	EACH WAY
E	EAST
EOD	EDGE OF DECK
EOS	EDGE OF SLAB
EL	ELEVATION
ELEV	ELEVATOR
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
EXIST	EXISTING
EXP	EXPANSION
EJ	EXPANSION JOINT
ES	END STRIP
EXT	EXTERIOR
FS	FAR SIDE
FT or '	FEET OR FOOT
FIN	FINISH, FINISHED
FPRFG	FIREPROOFING
FLASH	FLASHING
FLR	FLOOR
FD	FLOOR DRAIN
FTG	FOOTING
FDN	FOUNDATION
FURR	FURRED, FURRING
FUT	FUTURE
GALV	GALVANIZED
GA	GAUGE
GC	GENERAL CONTRACTOR
GR	GRADE
HGT	HEIGHT
HP	HIGH POINT
HSB	HIGH STRENGTH BOLT
HORIZ	HORIZONTAL, HORIZONTALLY
IN or "	INCH OR INCHES
INCL ID	INCLUDE, INCLUDING INSIDE DIAMETER
JT	JOINT
JST	JOIST
K	KIP (1,000 LB)
LGTH	LENGTH
LEV	LEVEL
LL	LIVE LOAD
LG	LONG
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
MAS	MASONRY
MAX	MAXIMUM
MET	METAL
MIN	MINIMUM
MISC	MISCELLANEOUS
MS	MIDDLE STRIP
NS	NEAR SIDE
NOM	NOMINAL
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO or #	NUMBER
OC	ON CENTER
OPG	OPENING
OPP	OPPOSITE
OO	OUT TO OUT
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
PVMT	PAVEMENT
PERIM	PERIMETER
PC	PIECE
PCS	PIECES
PL	PLATE
PT	POINT
PVC	POLYVINYLCHLORIDE
LBS or #	POUNDS
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PC	PRECAST
PREFAB	PREFABRICATED
RAD or R	RADIUS
REC	RECESS
RECT	RECTANGLE, RECTANGULAR
REINF	REINFORCE, REINFORCING
RC	REINFORCED CONCRETE
REQ'D	REQUIRED
RET	RETURN
REV	REVISED, REVISION
RD	ROOF DRAIN
RFG	ROOFING
SCH	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
S	SOUTH
SP	SPACE
SPEC	SPECIFICATIONS
SF	SQUARE FEET (FOOT)
SS	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STL PL	STEEL PLATE
STR	STRAIGHT
STRUCT	STRUCTURAL
S STL	STRUCTURAL STEEL
SUPP	SUPPORT
SURF	SURFACE
SYM	SYMBOL, SYMMETRICAL
SYS	SYSTEM
THK	THICK, THICKNESS
KIP or K	THOUSAND POUNDS
THD	THREAD, THREADED
THRU	THROUGH
T & B	TOP AND BOTTOM
TE	TOP ELEVATION
TF	TOP OF FRAME
TSE	TOP OF SLAB ELEVATION
TOS	TOP OF STEEL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL, VERTICALLY
VIF	VERIFY IN FIELD
WP	WATERPROOF
WT	WEIGHT
WWF	WELDED WIRE FABRIC
W	WEST
W WO	WITH, WITHOUT
WL	WORKING LINE
W	WORKING
PT	POINT
YS	YIELD STRENGTH



SECTION AND DETAIL KEY

SCALE IN FEET
10 5 0 10

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REVISIONS

NUMBER	DATE	REMARKS

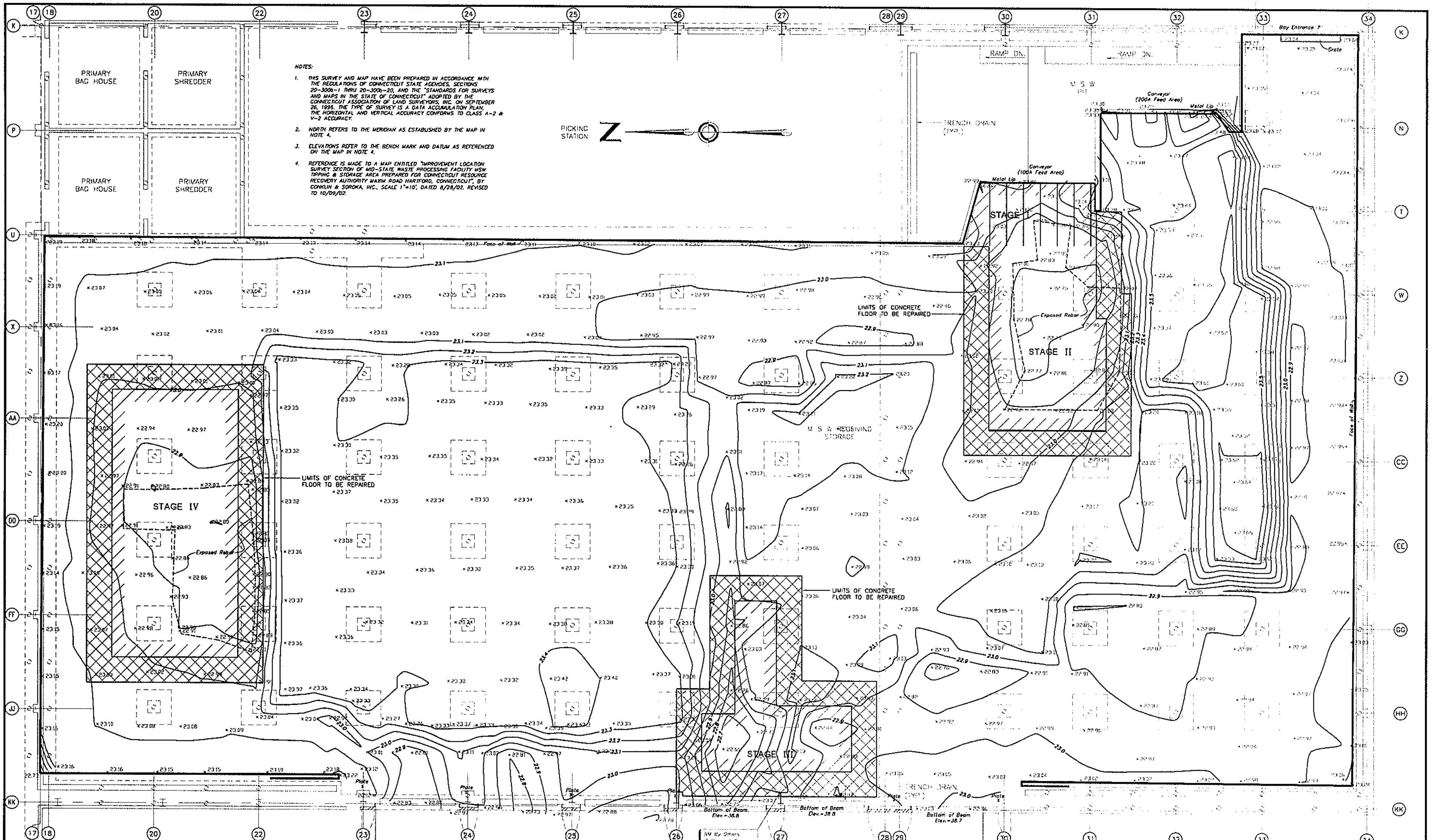
MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	36937394
DRAWN BY:	MMM
CHECKED BY:	PJG
DATE:	10/24/07
CADD FILE:	S001.DWG

GENERAL NOTES AND ABBREVIATIONS

S-001



NOTES:

1. THIS SURVEY AND MAP HAVE BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300b-1 THRU 20-300b-20, AND THE "STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT" ADOPTED BY THE CONNECTICUT ASSOCIATION OF LAND SURVEYORS, INC. ON SEPTEMBER 26, 1996. THE TYPE OF SURVEY IS A DATA ACCUMULATION PLAN. THE HORIZONTAL AND VERTICAL ACCURACY CONFORMS TO CLASS A-2 & V-2 ACCURACY.
2. NORTH REFERS TO THE MERIDIAN AS ESTABLISHED BY THE MAP IN NOTE 4.
3. ELEVATIONS REFER TO THE BENCH MARK AND DATUM AS REFERENCED ON THE MAP IN NOTE 4.
4. REFERENCE IS MADE TO A MAP ENTITLED "IMPROVEMENT LOCATION SURVEY SECTION OF MID-STATE WASTE PROCESSING FACILITY MSW TIPPING & STORAGE AREA PREPARED FOR CONNECTICUT RESOURCE RECOVERY AUTHORITY MAXIM ROAD HARTFORD, CONNECTICUT", BY CONKLIN & SOROKA, INC., SCALE 1"=10', DATED 8/28/02, REVISED TO 10/09/02.

NOTE: REPLACED WITH DRAWING NOS. S-003 AND S-004.

DATA ACCUMULATION PLAN
SECTION OF
MID-STATE WASTE PROCESSING FACILITY
MSW TIPPING & STORAGE AREA FLOOR
MAXIM ROAD
HARTFORD, CONNECTICUT
PREPARED FOR
CONNECTICUT RESOURCES RECOVERY AUTHORITY

GRAPHIC SCALE 1"=10'

S-002

TO MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON

MICHAEL G. WILMES, L.S. LICENSE NO. 14206

TRUE AND VALID COPIES OF THIS MAP OR PLAN MUST BEAR THE ORIGINAL SIGNATURE AND EMBOSSED SEAL OF THE ABOVE NAMED LAND SURVEYOR. UNAUTHORIZED REPRODUCTION OR ALTERATION IS FORBIDDEN.

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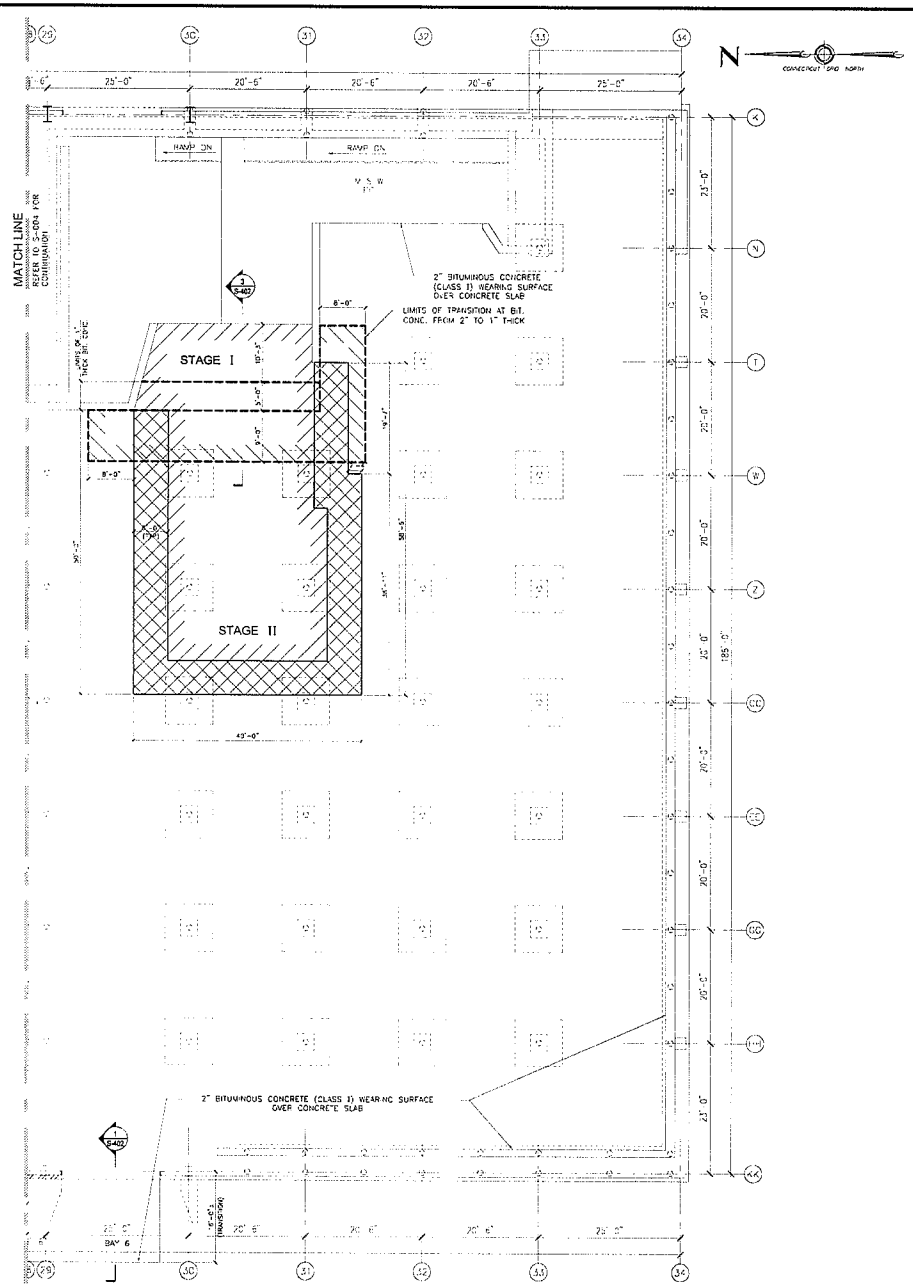
Surveying and Mapping by
URS Corporation AES
500 Enterprise Drive, Suite 3B
Rocky Hill, Connecticut 06067-4007
Tel (860) 529-8882

Scale: 1" = 10'
Date: MAY 2007

Field book #	Crew Chief	Project #	
1573-73	S.PERRY	36937394.00001	
Search #	Drawn by	Checked by	Map File #
~	EL		T152-28A

S:\SURVEY\ACTIVE\36937394\DWG\36937394A.DWG



NOTES:

- INDICATES LIMITS OF PARTIAL DEPTH CONCRETE REPAIR AREA.
- INDICATES LIMITS OF TRANSITION AREA FROM NEW MSW CONCRETE OVERLAY TO EXSITING MSW CONC. SLAB.

1 S-003 MSW FLOOR REPAIR PLAN (STAGE I & 2)

SCALE IN FEET
10 5 0 10

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MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

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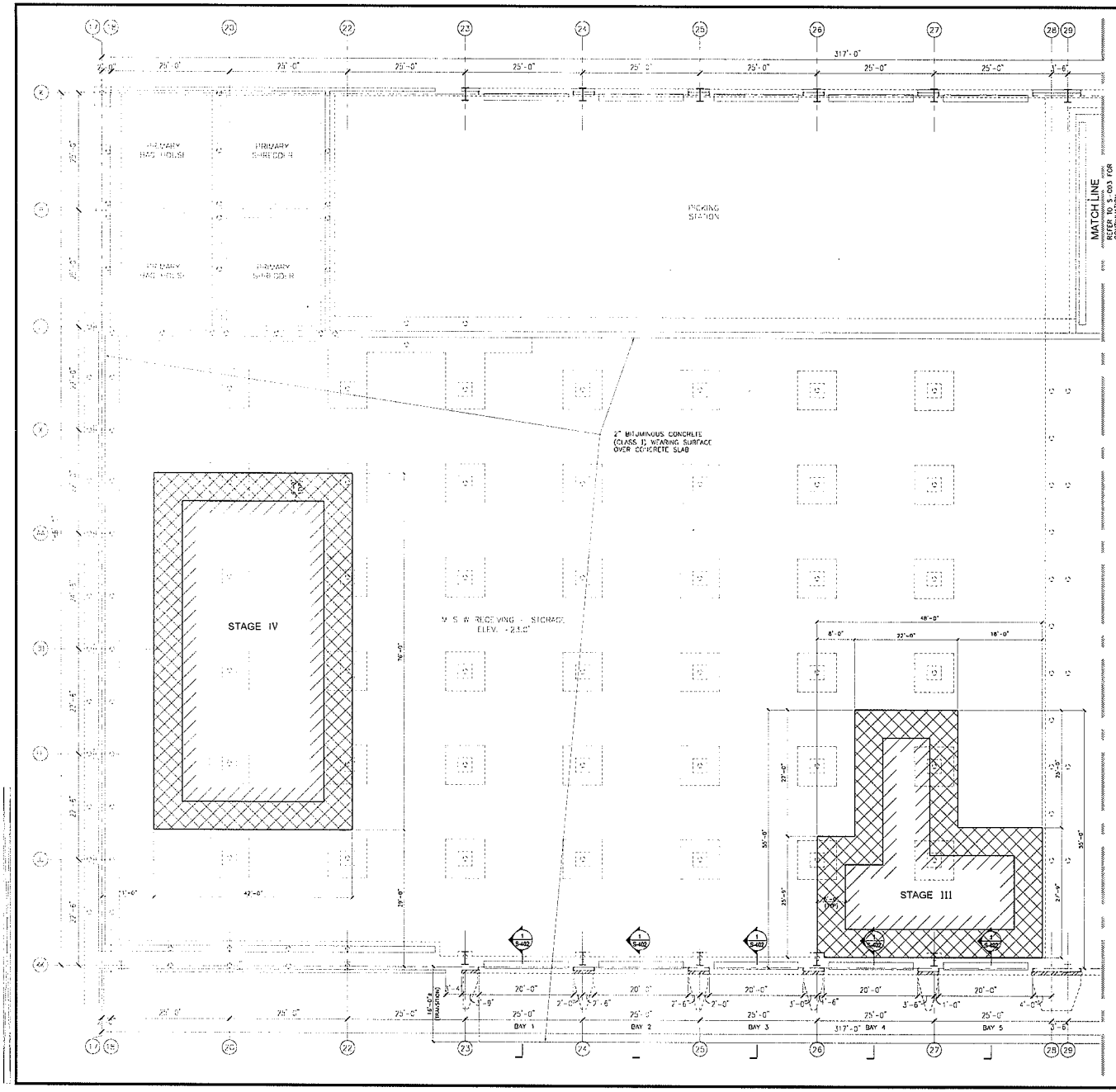
MSW FLOOR REPAIR PLAN (STAGE I & 2)

S-003



1 S-004 MSW FLOOR REPAIR PLAN (STAGE III & IV)
SCALE: 1"= 10'

SCALE IN FEET
10 5 0 10

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MAXIM ROAD
HARTFORD, CT.

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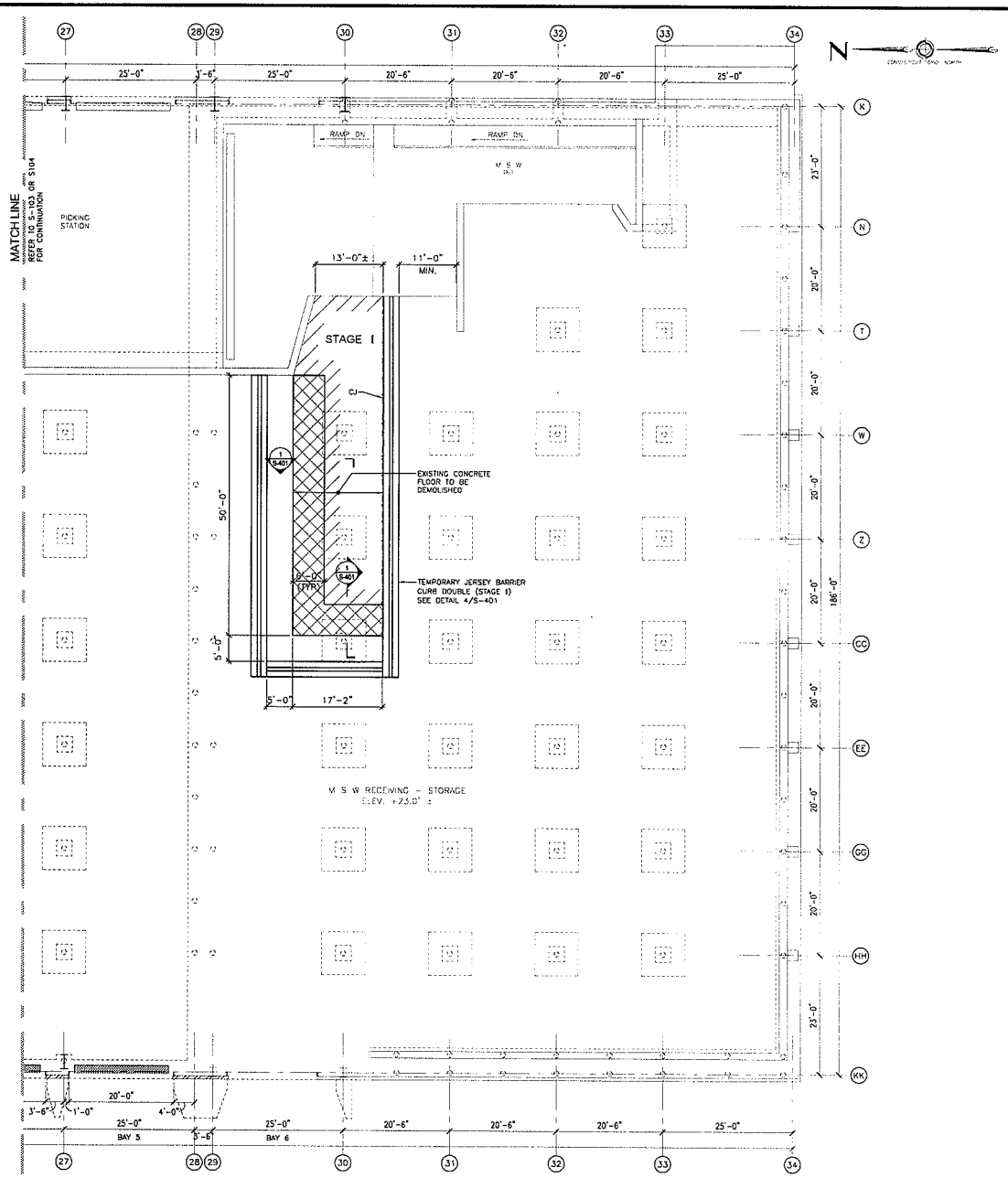
DATE:	10/24/07
CADD FILE:	S004.DWG

MSW FLOOR REPAIR PLAN (STAGE III & IV)

S-004



NOTES:

1. FOR CONSTRUCTION STAGING PLAN, SEE DRAWINGS S-201.
2. FOR REINFORCEMENT PLAN, SEE DRAWING S-301.

- INDICATES LIMITS OF PARTIAL DEPTH CONCRETE REPAIR AREA. SEE DETAIL 2/S-401
- INDICATES LIMITS OF TRANSITION AREA FROM NEW MSW CONCRETE OVERLAY TO EXISTING MSW CONC. SLAB. SEE DETAIL 2/S-401

1 / S-101 MSW FLOOR DEMOLITION PLAN (STAGE I)

SCALE IN FEET
10 5 0 10

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HARTFORD, CT.

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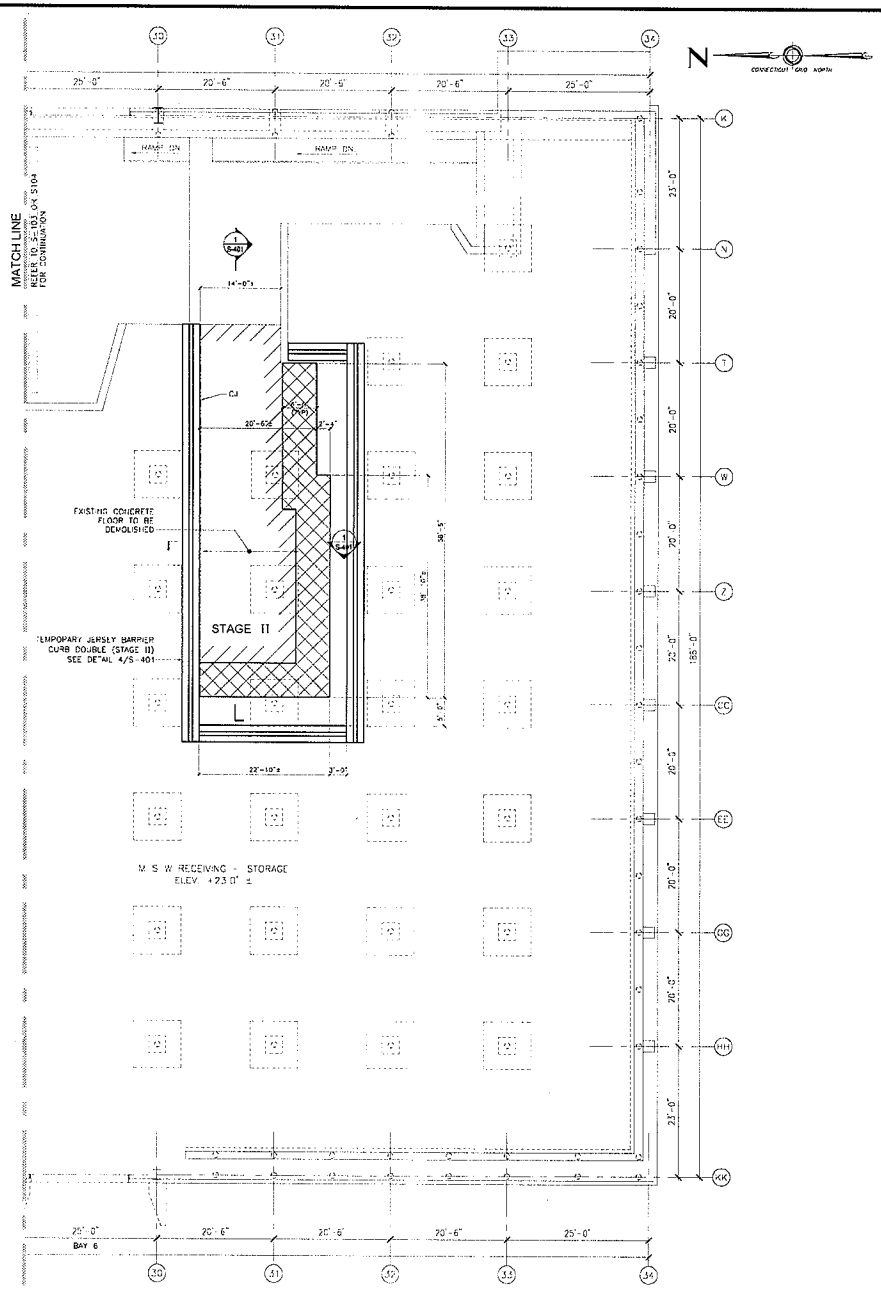
MSW FLOOR DEMOLITION PLAN (STAGE I)

S-101



NOTES:

1. FOR CONSTRUCTION STAGING PLAN, SEE DRAWINGS S-202.
2. FOR REINFORCEMENT PLAN, SEE DRAWING S-301.

- INDICATES LIMITS OF PARTIAL DEPTH CONCRETE REPAIR AREA. SEE DETAIL 2/S-401
- INDICATES LIMITS OF TRANSITION AREA FROM NEW MSW CONCRETE OVERLAY TO EXSITING MSW CONC SLAB. SEE DETAIL 2/S-401

1 / S-102 MSW FLOOR DEMOLITION PLAN (STAGE II)

SCALE IN FEET
10 5 0 10

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MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

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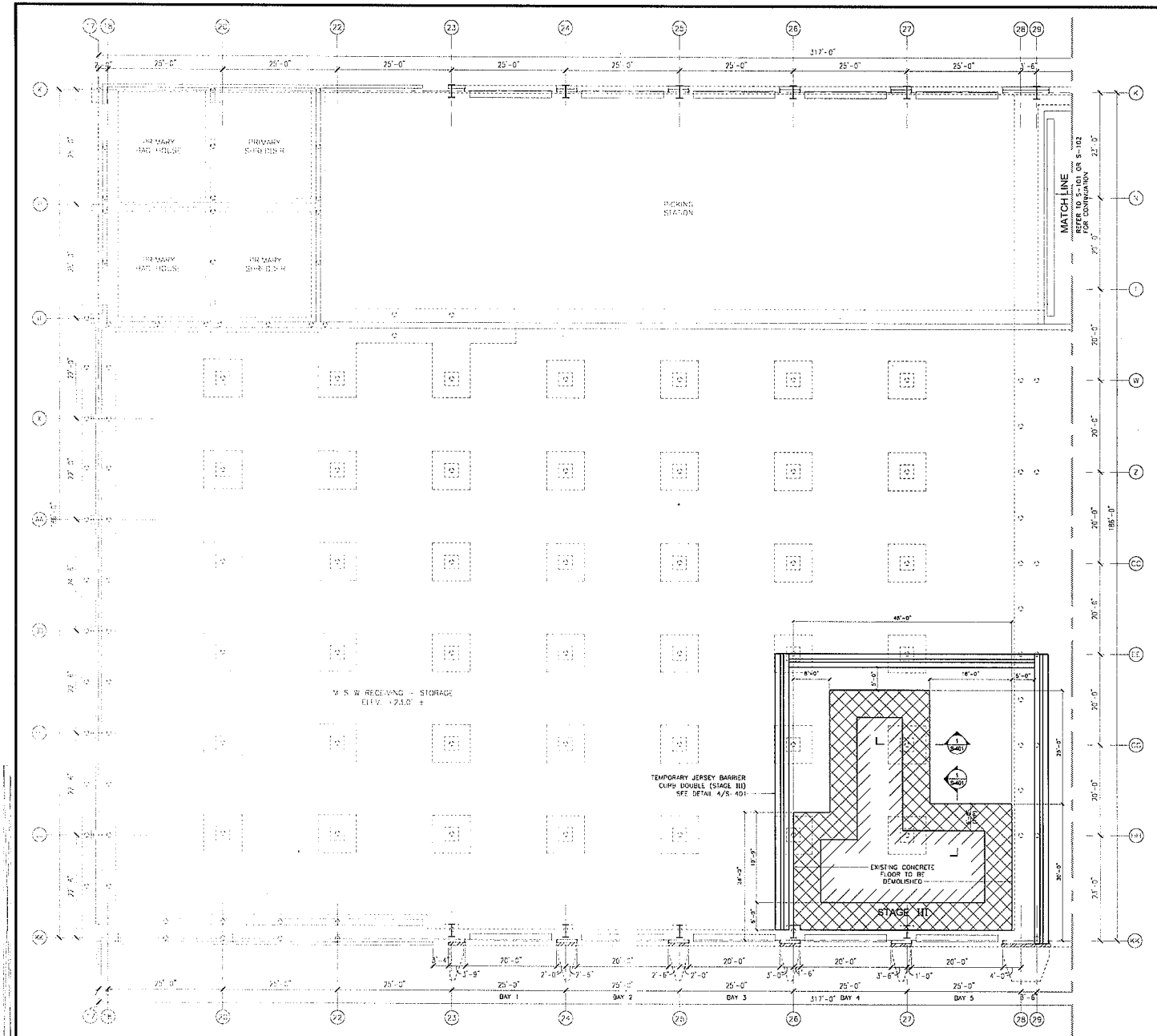
MSW FLOOR DEMOLITION PLAN (STAGE II)

S-102



NOTES:

1. FOR CONSTRUCTION STAGING PLAN, SEE DRAWINGS S-203.
2. FOR REINFORCEMENT PLAN, SEE DRAWING S-302.

▨ - INDICATES LIMITS OF PARTIAL DEPTH CONCRETE REPAIR AREA. SEE DETAIL 2/S-401

▩ - INDICATES LIMITS OF TRANSITION AREA FROM NEW MSW CONCRETE OVERLAY TO EXISTING MSW CONC SLAB. SEE DETAIL 2/S-401

1 / S-103 MSW FLOOR DEMOLITION PLAN (STAGE III)

SCALE IN FEET
10 5 0 10

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NUMBER	DATE	REMARKS

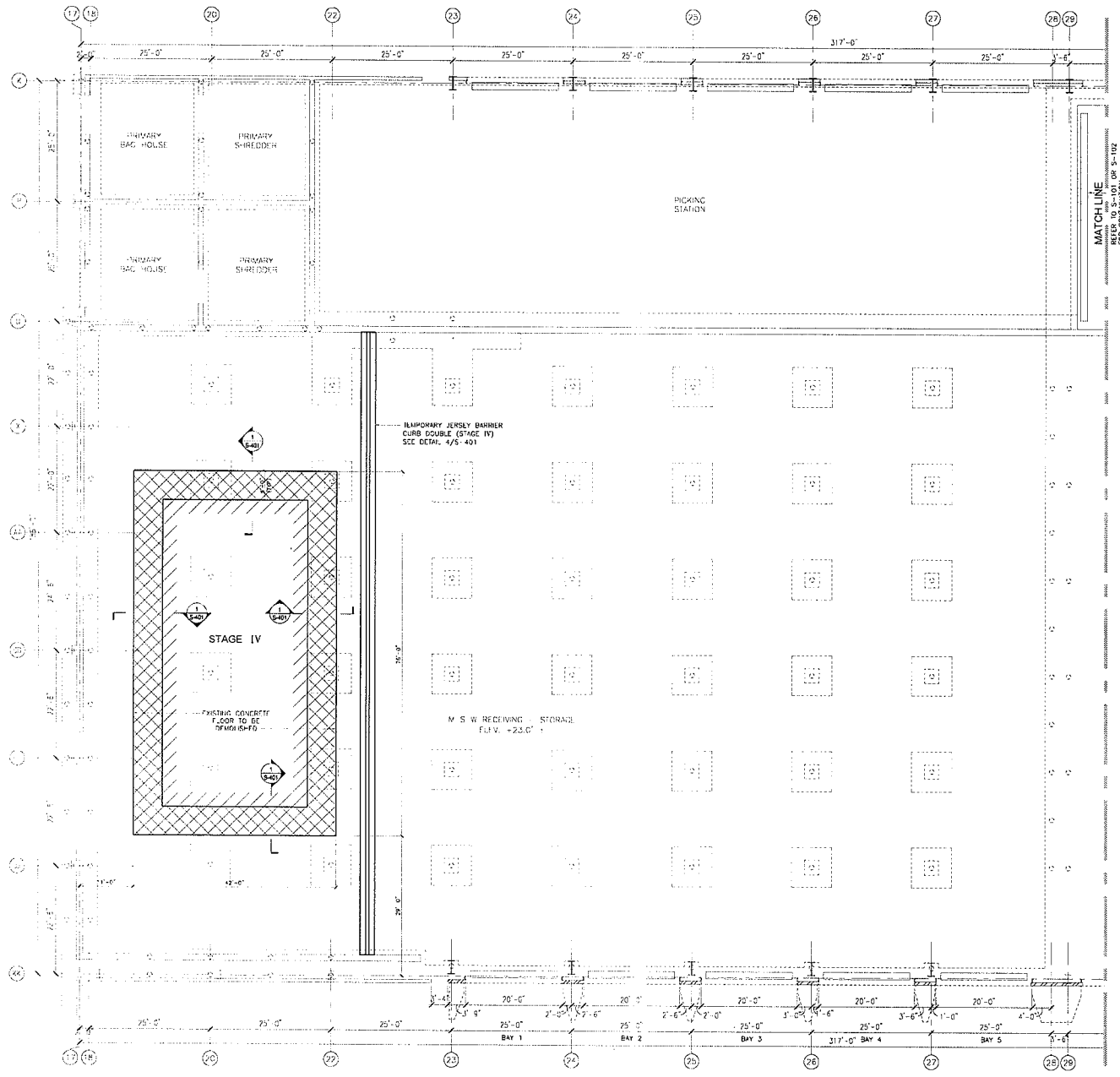
MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO: 36937394
DRAWN BY: MMM
CHECKED BY: PJG
DATE: 10/24/07
CADD FILE: S103.DWG

MSW FLOOR DEMOLITION PLAN (STAGE III)

S-103



NOTES:

1. FOR CONSTRUCTION STAGING PLAN, SEE DRAWINGS S-104.
2. FOR REINFORCEMENT PLAN, SEE DRAWING S-302.

▨ - INDICATES LIMITS OF PARTIAL DEPTH CONCRETE REPAIR AREA. SEE DETAIL 2/S-401

▩ - INDICATES LIMITS OF TRANSITION AREA FROM NEW MSW CONCRETE OVERLAY TO EXISTING MSW CONC SLAB. SEE DETAIL 2/S-401

1 / S-104 MSW FLOOR DEMOLITION PLAN (STAGE IV)

SCALE IN FEET 10 5 0 10

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REVISIONS

NUMBER	DATE	REMARKS

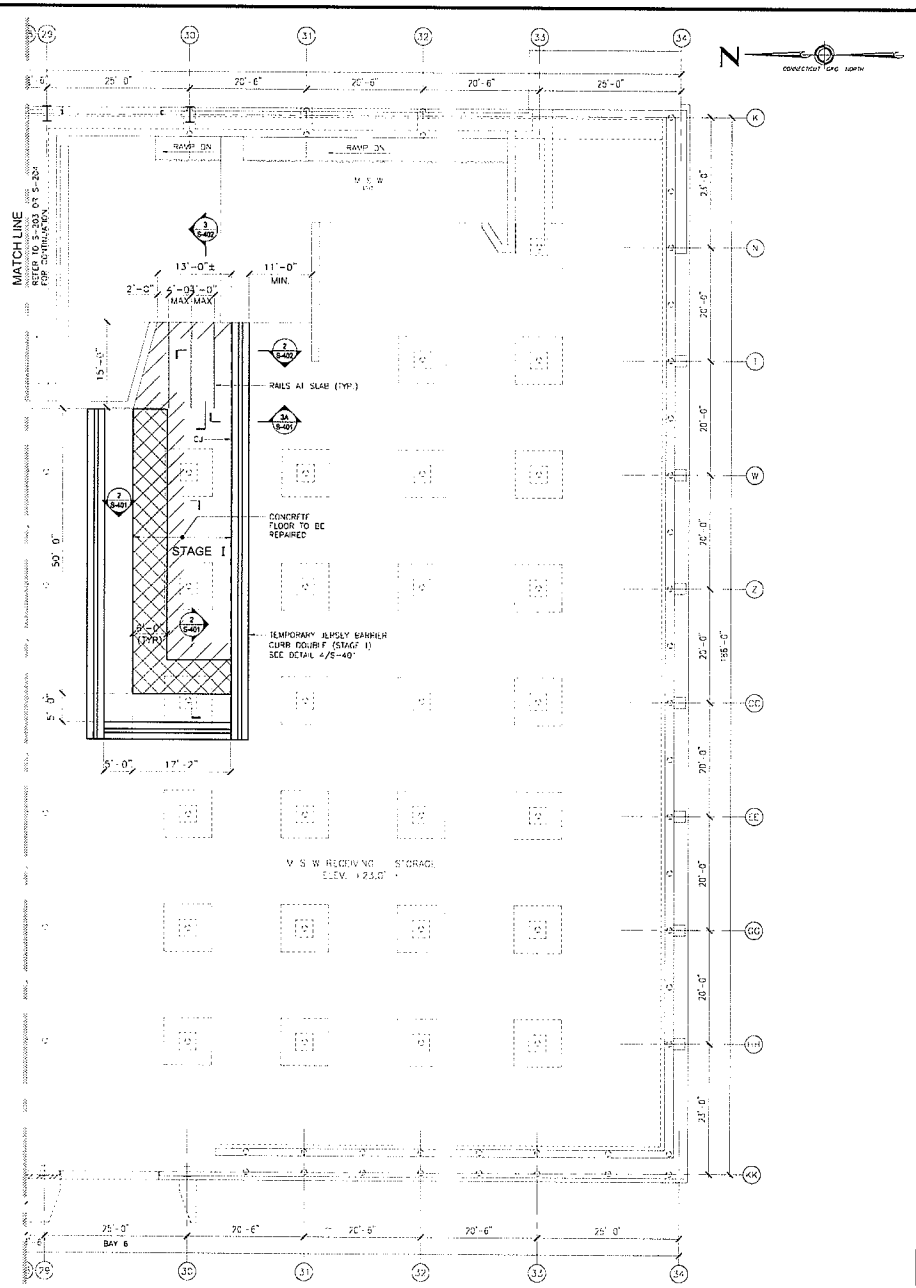
MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	36937394.00001
DRAWN BY:	MMM
CHECKED BY:	PJG
DATE:	10/24/07
CADD FILE:	S104.DWG

MSW FLOOR DEMOLITION (STAGE IV)

S-104



N

CONNECTICUT GRID NORTH

NOTES:

1. FOR DEMOLITION STAGING PLAN, SEE DRAWINGS S-101.
2. FOR REINFORCEMENT PLAN, SEE DRAWING S-301.

- INDICATES LIMITS OF PARTIAL DEPTH CONCRETE REPAIR AREA. SEE DETAIL 2/S-401
- INDICATES LIMITS OF TRANSITION AREA FROM NEW MSW CONCRETE OVERLAY TO EXISTING MSW CONC SLAB. SEE DETAIL 2/S-401

1 / S-201 MSW FLOOR CONCRETE SLAB REPAIR PLAN (STAGE I)

SCALE IN FEET
10 5 0 10

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REVISIONS

NUMBER	DATE	REMARKS

MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

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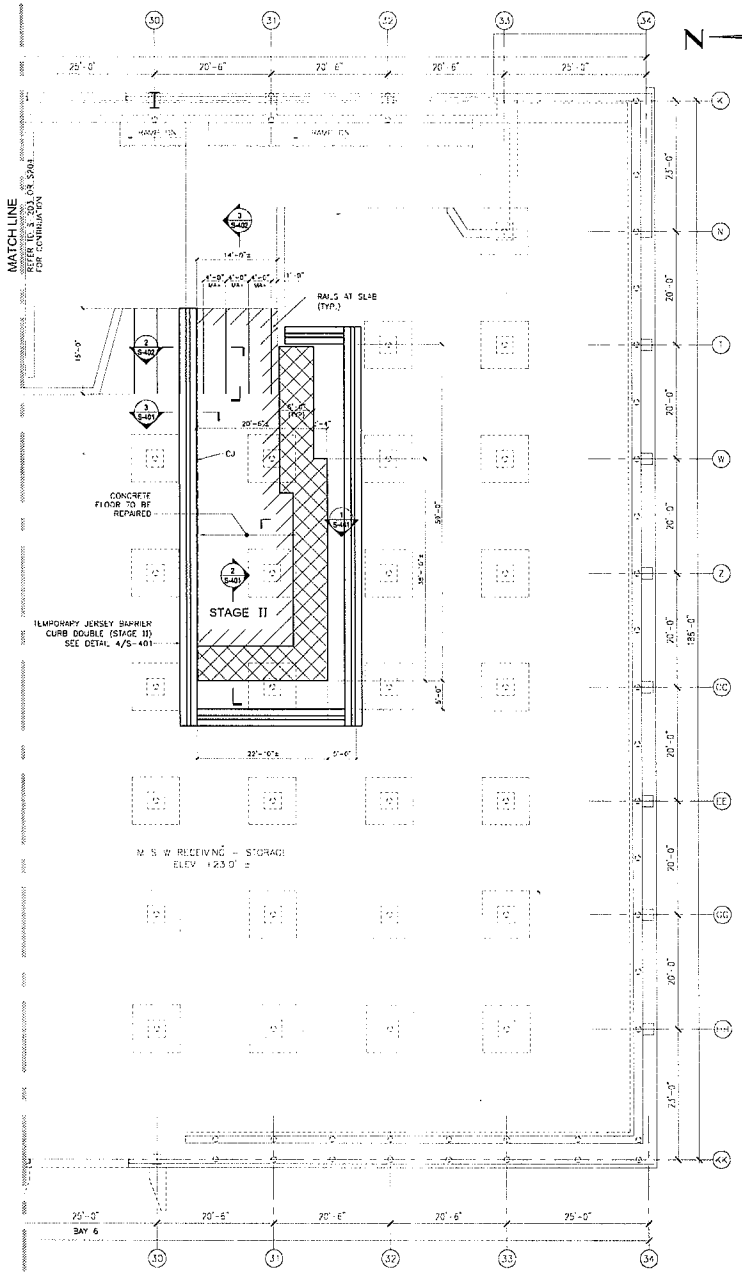
DATE:	10/24/07
CADD FILE:	S201.DWG

MSW FLOOR CONCRETE SLAB REPAIR PLAN (STAGE I)

S-201



N

CONNECTICUT GRID NORTH

NOTES:

1. FOR DEMOLITION STAGING PLAN, SEE DRAWINGS S-102.
2. FOR REINFORCEMENT PLAN, SEE DRAWING S-301.

▨ – INDICATES LIMITS OF PARTIAL DEPTH CONCRETE REPAIR AREA. SEE DETAIL 2/S-401

▩ – INDICATES LIMITS OF TRANSITION AREA FROM NEW MSW CONCRETE OVERLAY TO EXSITING MSW CONC SLAB. SEE DETAIL 2/S-401

1 / S-202 MSW FLOOR CONCRETE SLAB REPAIR PLAN (STAGE II)

SCALE IN FEET
10 5 0 10

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NUMBER	DATE	REMARKS

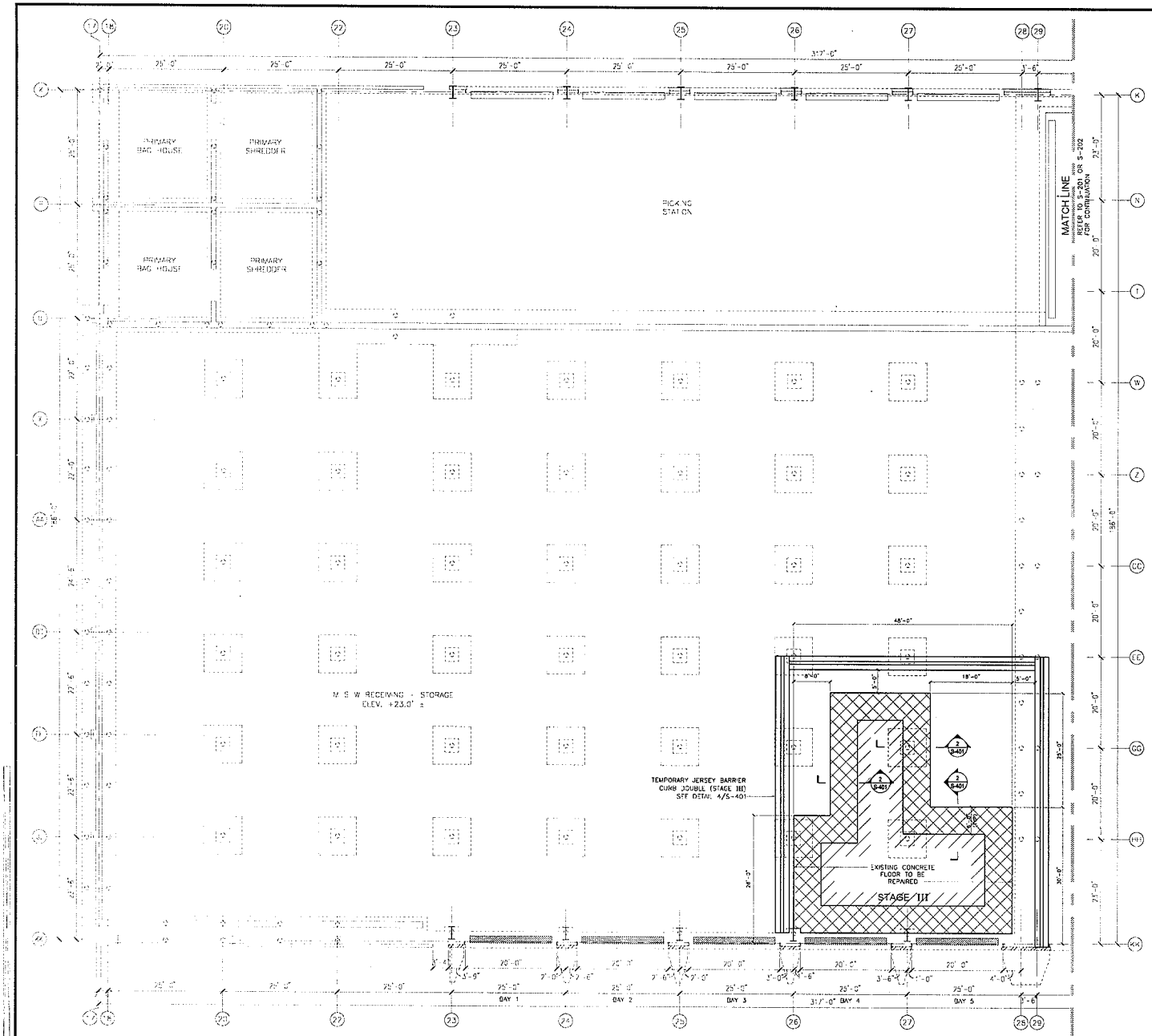
MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	36937394
DRAWN BY:	MMM
CHECKED BY:	PJG
DATE:	10/24/07
CADD FILE:	S202.DWG

MSW FLOOR CONCRETE SLAB REPAIR PLAN (STAGE II)

S-202



N

CONNECTICUT GRID NORTH

NOTES:

1. FOR DEMOLITION STAGING PLAN, SEE DRAWINGS S-103.
2. FOR REINFORCEMENT PLAN, SEE DRAWING S-302.

- INDICATES LIMITS OF PARTIAL DEPTH CONCRETE REPAIR AREA. SEE DETAIL 2/S-401
- INDICATES LIMITS OF TRANSITION AREA FROM NEW MSW CONCRETE OVERLAY TO EXSITING MSW CONC SLAB. SEE DETAIL 2/S-401

1 S-203 MSW FLOOR CONCRETE SLAB REPAIR PLAN (STAGE III)

SCALE IN FEET 10 5 0 10

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FAX. NO. (860)-757-7742

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REVISIONS

NUMBER	DATE	REMARKS

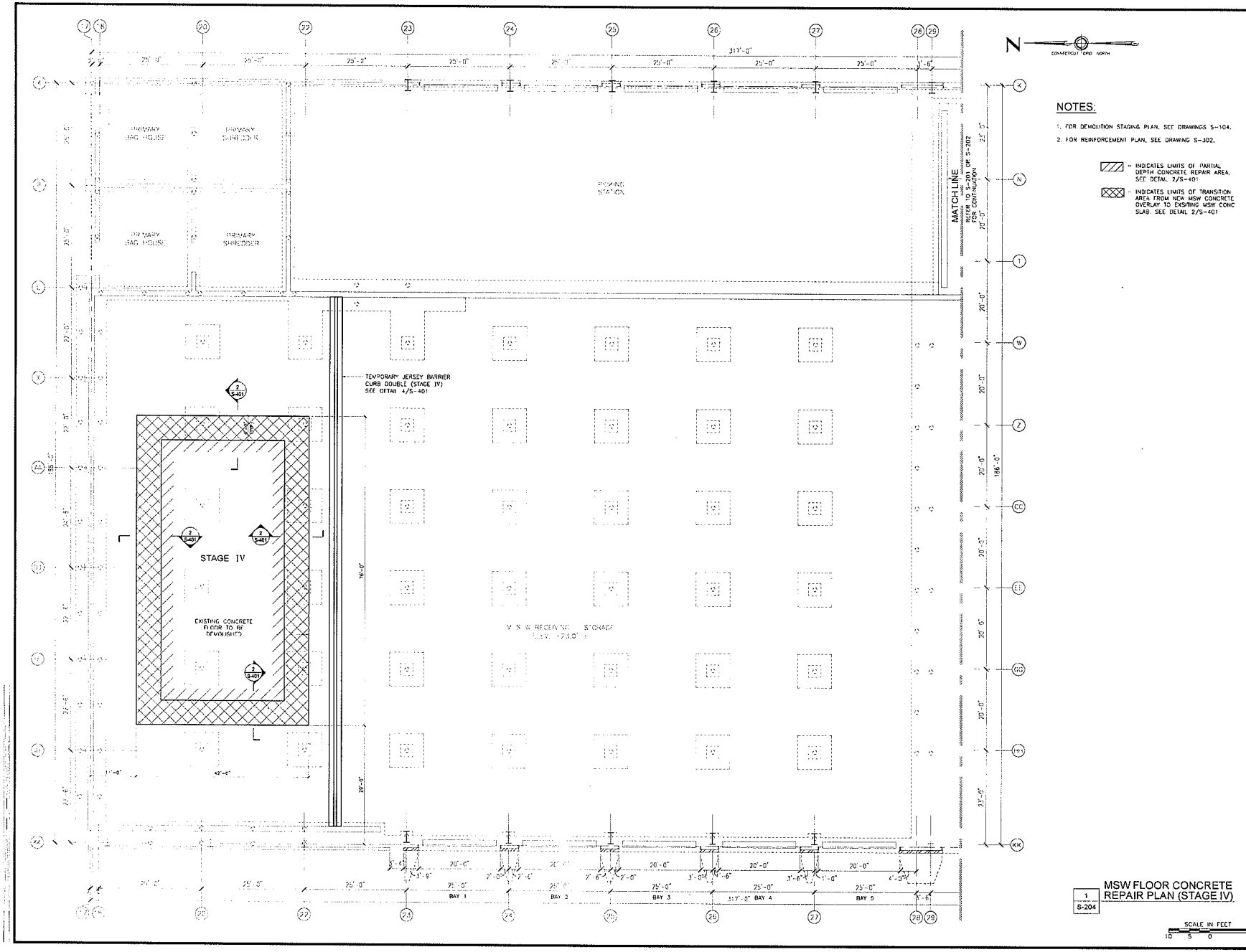
MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	38937394
DRAWN BY:	MMM
CHECKED BY:	PJG
DATE:	10/24/07
CADD FILE:	S203.DWG

MSW FLOOR CONCRETE SLAB REPAIR PLAN (STAGE III)

S-203



NOTES:

1. FOR DEMOLITION STAGING PLAN, SEE DRAWINGS S-104.
2. FOR REINFORCEMENT PLAN, SEE DRAWING S-302.

- INDICATES LIMITS OF PARTIAL DEPTH CONCRETE REPAIR AREA, SEE DETAIL 7/S-401
- INDICATES LIMITS OF TRANSITION AREA FROM NEW MSW CONCRETE OVERLAY TO EXISTING MSW CONC SLAB. SEE DETAIL 2/S-401

1/S-204 MSW FLOOR CONCRETE REPAIR PLAN (STAGE IV)

SCALE IN FEET
10 5 0 10

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REVISIONS

NUMBER	DATE	REMARKS

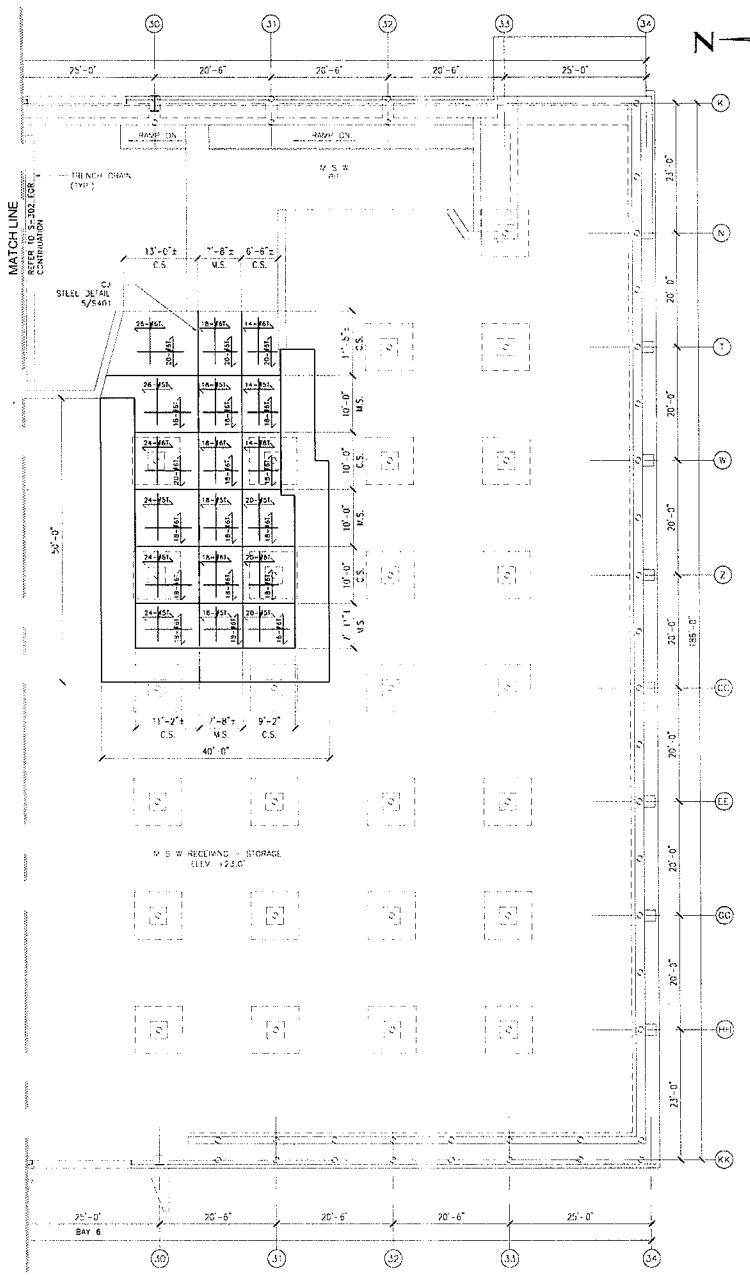
MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	36937394
DRAWN BY:	MMM
CHECKED BY:	PJG
DATE:	10/24/07
CADD FILE:	S204.DWG

MSW FLOOR CONCRETE SLAB REPAIR PLAN (STAGE IV)

S-204



N

CONNECTICUT GRID NORTH

NOTES:

1. FOR CONSTRUCTION STAGE I & II SEE DRAWINGS S-201 & S-202.
2. FOR DEMOLITION STAGE I & II SEE DRAWINGS S-101 & S-102.

LEGEND

CS = COLUMN STRIP
MS = MIDDLE STRIP
ES = END STRIP

1 S-301 CONCRETE SLAB REPAIR REINFORCEMENT PLAN (STAGE I & II)
SCALE: 1" = 10'

SCALE IN FEET
10 5 0 10

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REVISIONS

NUMBER	DATE	REMARKS

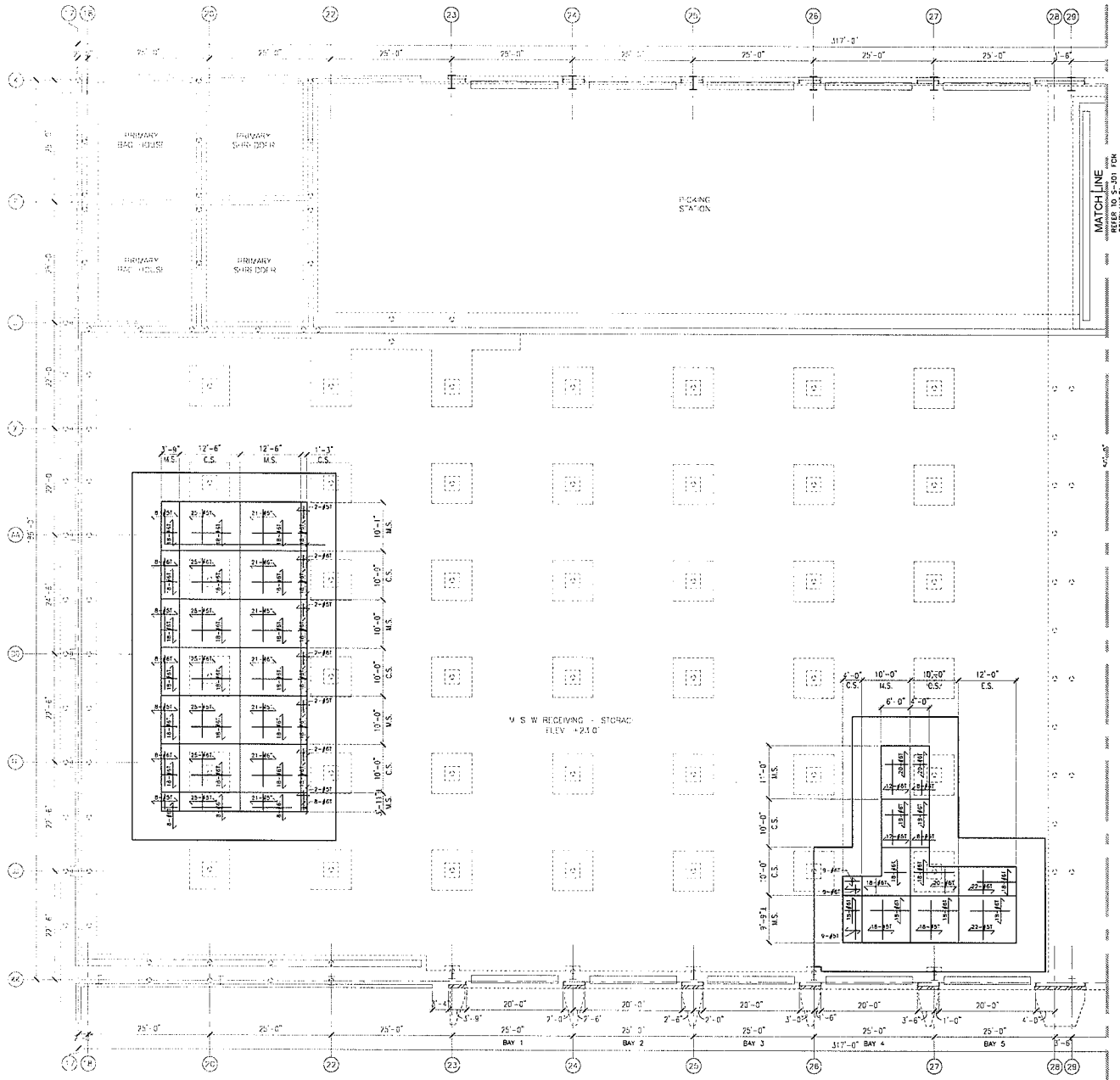
MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	36937394
DRAWN BY:	MMM
CHECKED BY:	PJG
DATE:	10/24/07
CADD FILE:	S301.DWG

CONCRETE SLAB REPAIR REINFORCEMENT PLAN (STAGE I & II)

S-301



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REVISIONS

NUMBER	DATE	REMARKS

MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	36937394
DRAWN BY:	MMM
CHECKED BY:	PJG
DATE:	10/24/07
CADD FILE:	S302.DWG

CONCRETE SLAB REPAIR REINFORCEMENT PLAN (STAGE III & IV)

S-302

NOTES:

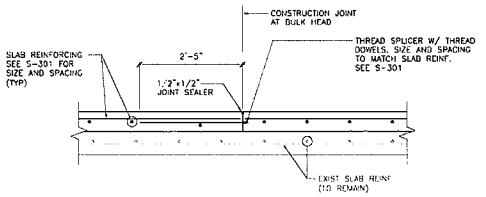
1. FOR CONSTRUCTION STAGES III & IV PLANS SEE DRAWINGS S-203 & S-204.
2. FOR DEMOLITION STAGES III & IVPLANS SEE DRAWINGS S-103 & S-104.

LEGEND

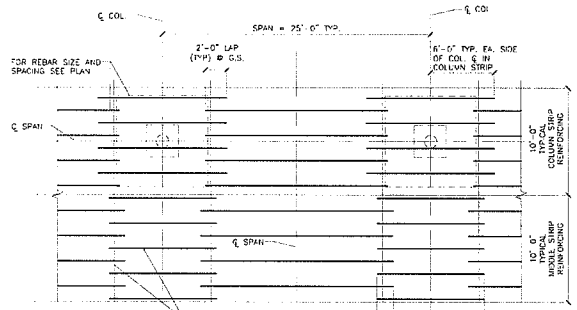
CS = COLUMN STRIP
MS = MIDDLE STRIP
ES = END STRIP

1 S-302 CONCRETE SLAB REPAIR REINFORCEMENT PLAN (STAGE III & IV)
SCALE: 1"= 10'

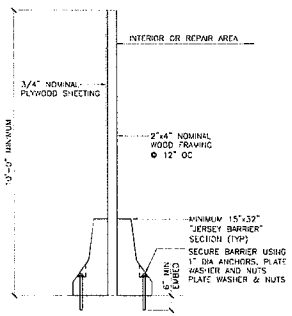
SCALE IN FEET
10 5 0 10



3 / S-202 TYPICAL CONSTRUCTION JOINT DETAIL
SCALE: 3/4" = 1'-0"



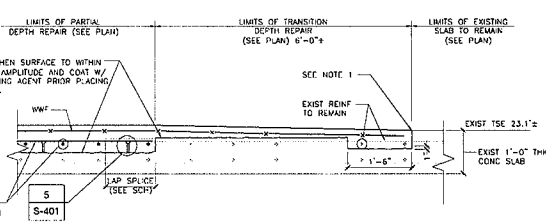
7 / S-401 TYPICAL N-S SLAB TOP REINFORCEMENT LAYOUT
SCALE: 3/16" = 1'-0"



NOTES:

1. THE TEMPORARY CONC JERSEY BARRIER SHOWN SHALL BE CHEMICALLY ANCHORED TO THE EXISTING SLAB. THIS WILL CONSIST OF DRILLING HOLES INTO EXISTING CONCRETE, PLACING ANCHORS INTO HOLE AND SECURING WITH PRE-APPROVED CHEMICAL ANCHOR MATERIAL.
2. A MINIMUM OF 4 ANCHOR BOLTS FOR EVERY 20 LINEAR FEET OF EACH TEMPORARY CONCRETE JERSEY BARRIER.
3. UPON REMOVAL OF TEMPORARY CONCRETE JERSEY BARRIER, THE ANCHOR BOLTS WILL BE CUT BELOW THE SURFACE OF THE EXISTING CONCRETE SLAB AND FILL THE TOP OF THE HOLE WITH NON-SHRINK GROUT.

4 / S-101 / 4 / S-102 / 4 / S-103 / 4 / S-104 / 4 / S-105 / 4 / S-106 TEMORARY CONSTRUCTION BARRIER DETAIL
SCALE: 1/2" = 1'-0"

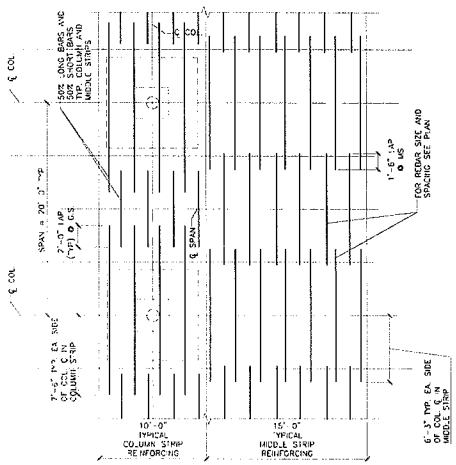


2 / S-201 / 2 / S-202 / 2 / S-203 / 2 / S-204 SECTION
SCALE: 3/4" = 1'-0"

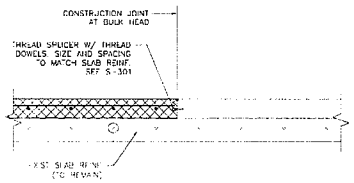
MINIMUM REINFORCEMENT BAR LAP SPLICE LENGTHS	
BAR SIZE	LAP SPLICE LENGHTS (INCHES)
#5	24
#6	29
#7	42
#8	48

NOTES:

1. PROVIDE SMOOTH TRANSITION BETWEEN NEW CONCRETE SURFACE AND EXISTING CONCRETE FLOOR BY VARYING TRANSITION SLOPE TO APPROXIMATELY MATCH CONTOUR OF EXISTING CONCRETE. ABRUPT HIGH POINTS IN EXISTING PROFILE SHALL BE GROUND TO PROMOTE A SMOOTH TRANSITION.
2. PROVIDE NEW REINFORCEMENT TO MATCH THE SIZE AND SPACING OF REINFORCEMENT SHOWN ON DRWGS NO S301 OR S302. NEW REINFORCEMENT SHALL BE INSTALLED WITH TOP OF EXISTING STEEL ELEVATION 23.000± FOR UPPER MAT AND ELEVATION 22.420± FOR LOWER MAT.
3. MECHANICAL COUPLES MAY BE SUBSTITUTED FOR LAP SPLICES AT THE CONTRACTORS OPTION AND EXPENSE.

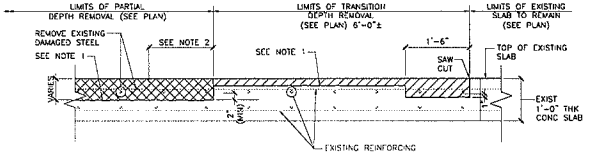


6 / S-401 TYPICAL E-W SLAB TOP REINFORCEMENT LAYOUT
SCALE: 3/16" = 1'-0"



= LIMITS OF EXIST. SLAB TO BE REMOVED.

3A / S-201 TYPICAL CONSTRUCTION JOINT DETAIL
SCALE: 3/4" = 1'-0"



= INDICATES REMOVAL OF EXIST DETERIORATED CONCRETE AND EXIST REINFORCING STEEL BARS.

= INDICATE REMOVAL OF EXIST DETERIORATED CONCRETE.

NOTES:

1. ROUGHEN CONCRETE SURFACE TO 1/4" AMPLITUDE AND COAT WITH BONDING AGENT PRIOR TO PLACING CONCRETE.
2. MAINTAIN LAP SPLICE AT EXIST REINFORCING STEEL AS PER SCHEDULE. CLEAN STEEL OF ALL RUST AND EXISTING CONCRETE DEBRIS PRIOR TO PLACEMENT OF NEW REINFORCING STEEL.
3. AT FIRST 1'-6" OF TRANSITION AREA DELINEATE PERIMETER WITH 1" DEEP SAW CUT REMOVE THE EXISTING CONCRETE TO 1" BELOW EXIST REINFORCING STEEL AS SHOWN.
4. CLEAN ALL CONCRETE SURFACE BEFORE APPLYING BONDING AGENT ANY DAMAGE TO EXISTING REINFORCING STEEL TO REMAIN DURING DEMOLITION OPERATION, WILL BE REPAIRED OR REPLACED BY THE CONTRACTOR WITH NO ADDITIONAL COST TO THE OWNER.

1 / S-101 / 1 / S-102 / 1 / S-103 / 1 / S-104 SECTION
SCALE: 3/4" = 1'-0"

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REVISIONS

NUMBER	DATE	REMARKS

MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	36937394
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CHECKED BY:	PJG
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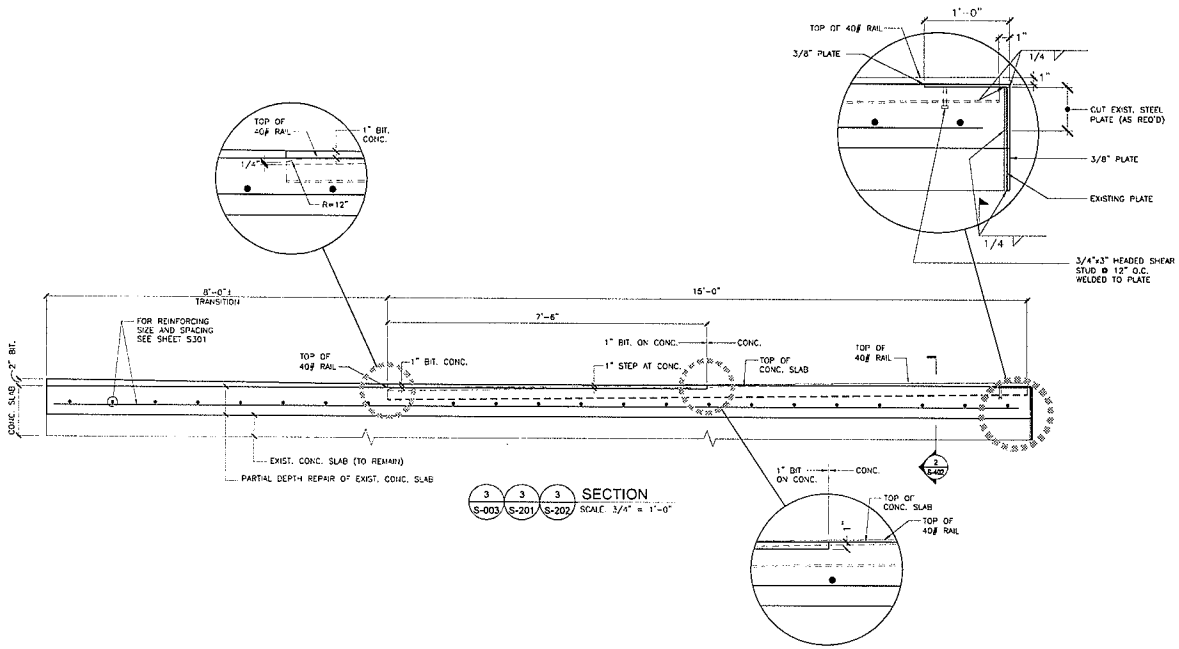
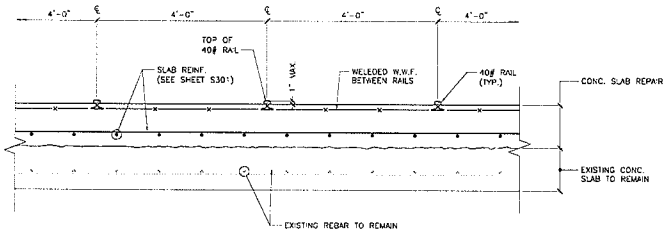
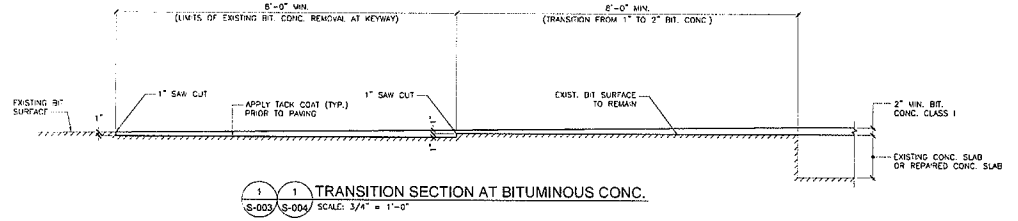
CONCRETE SLAB REPAIR DETAILS

S-401







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REVISIONS

NUMBER	DATE	REMARKS

MID-CONNECTICUT PROJECT
MSW FLOOR REPAIR

MAXIM ROAD
HARTFORD, CT.

PROJECT NO:	36937394
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DATE:	10/24/07
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CONCRETE SLAB REPAIR DETAILS

S-402

EXHIBIT B

To

MSW FLOOR REPAIRS AT THE MID-CONNECTICUT WASTE PROCESSING FACILITY AGREEMENT

GENERAL REQUIREMENTS

GENERAL REQUIREMENTS

Section	Title
01010	Summary of Work
01025	Measurement and Payment
01039	Coordination and Meetings
01300	Submittals
01340	Shop Drawings
01400	Quality Control (QC)
01410	Testing Laboratory Services
01600	Material and Equipment
01700	Contract Closeout
01740	Warranties and Bonds

SECTION 01010
SUMMARY OF WORK

Part 1. GENERAL

1.1 SECTION INCLUDES

A. Project Description
B. Work covered by Contract Documents
C. Work Site Location
D. Contractor use of site and premises
E. Work Sequence
F. Owner Occupancy

1.2 PROJECT DESCRIPTION

A. Connecticut Resources Recovery Authority (CRRA), of Hartford, Connecticut is issuing a construction contract to repair portions of concrete floor located at the MSW of the Waste Processing Facility at 300 Maxim Road, Hartford, Connecticut (the "Facility"). The work includes the demolition and repair of approximately 7,000 SF of concrete pavement, the installation of seven(7) 15 foot long railroad rails imbedded in concrete, the installation of a two (2") inch minimum of bituminous overlay over the entire MSW floor (approximately 43,000 SF) as well as all other improvements required for the Project.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

A. Furnish labor, material and equipment for the following:

- Build a Temporary Construction Barrier as shown on detail and install to protect the working area (Four stages).
- Demolish and repair approximately 7,000 SF of concrete slab as indicated at Stages I, II, III, IV.
- Install seven (7) 15 foot long railroad rails imbedded in concrete in front of Feed Line No. 1
- Install a two (2") inch minimum bituminous overlay over the entire MSW floor (approximately 43,000 square feet).
- Construction activities will take place while the Facility remains in operation.
- Construction activities shall be coordinated with Owner (CRRA) and Operator (MDC) as shown and specified.
- Construction staging shall not be modified without prior written approval from CRRA and/or MDC.
- Clean-up, disposal of waste, and debris, and restoration of work site to original condition and to satisfaction of Owner and Engineer.
- All other related work required to complete the Project.

1.4 WORK SITE LOCATION

A. Connecticut Resources Recovery Authority
Waste Processing Facility
300 Maxim Road
Hartford, Connecticut

1.5 CONTRACTOR USE OF WORK SITE AND PREMISES

A. Limit use of work site and premises to allow Owner occupancy and to maintain facilities operations.

1.6 WORK SEQUENCE

A. The total contract time will be **75 days**, beginning at a date to be specified in the Notice to Proceed.

1.7 OWNER OCCUPANCY

A. The Owner will occupy the site and premises during the entire period of construction.

B. Cooperate with Owner to minimize conflict, and to facilitate Owner's operations. The contractor shall ensure that all of his action(s) do not, in any manner, unnecessarily delay and/or impede the day to day operations of this facility.

C. Schedule the Work to accommodate this requirement. This may require off-hour and weekend work.

Part 2. PRODUCTS

Not used

Part 3. EXECUTION

Not used

END OF SECTION

SECTION 01025
MEASUREMENT AND PAYMENT

Part 1. GENERAL

1.1 SECTION INCLUDES

A. Schedule of Values
B. Format
C. Preparation of Applications
D. Submittal Procedures
E. Substantiating Data

1.2 RELATED SECTIONS

A. Agreement
B. Standard General Conditions
C. Supplementary Conditions
D. Section 01700 - Contract Closeout

1.3 SCHEDULE OF VALUES

A. Submit Schedule of Values in duplicate within ten (10) days after Effective Date of Agreement or date established in Notice to Proceed.

B. Submit at least the following:

1. Mobilization
2. Progress Schedule
3. Demolition of Concrete Floor Slab
4. Cast-in-place of concrete floor slab
5. Install railroad rails imbedded in concrete
6. Install a two (2') inch minimum bituminous overlay over the entire MSW floor
7. Miscellaneous Work
8. Clean-up
9. Contract Closeout

C. Include within each line item, a directly proportional amount of the CONTRACTOR'S overhead and profit.

D. Revise schedule to list approved Change Orders, with each Application for Payment.

1.4 FORMAT

A. Form AIA G702 and G703 (or approved substitute) Application for Payment (included at the end of this section).

B. Utilize Schedule of Values for listing items in Application for Payment.

C. Provide a column for listing each of the following items. Items Number; Description of Work; Scheduled Value; Previous Applications; Work in Place and Stored Materials under this Application; Authorized Change Orders; Total Completed and Stored to Date of Application; Percentage of Completion; Balance to Finish; and Retainage.

1.5 PREPARATION OF APPLICATIONS

A. Present required information in typewritten form.

B. Execute certification by signature of authorized officer.

C. Use data from approved Schedule of Values. Provide dollar value in each column for each line item for portion of work performed.

D. List each authorized Change Order as an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work.

E. Application for Final Payment: as specified in Section 01700.

1.6 SUBMITTAL PROCEDURES

A. Submit three (3) copies of each Application for Payment.

B. Submit an updated construction schedule with each Application for Payment.

C. Payment Period: at intervals stipulated in the Agreement.

D. Submit under transmittal letter specified in Section 01300.

1.7 SUBSTANTIATING DATA

A. When ENGINEER requires substantiating information, submit data justifying dollar amounts in question.

B. Provide one (1) copy of data with cover letter for each copy of submittal. Show Application number and date, and line item by number and description.

Part 2. PRODUCTS

Not used

Part 3. EXECUTION

Not used

END OF SECTION

SECTION 01039
COORDINATION AND MEETING

Part 1. GENERAL

1.1 SECTION INCLUDES

A. Coordination.
B. Field engineering.
C. Pre-construction meeting.
D. Progress meetings.
E. Pre-installation meeting.

1.2 RELATED SECTIONS

A. Section 01300 - Submittals.

1.3 COORDINATION

A. Coordinate scheduling, submittals, and Work of the various sections of the Project Manual and Plans to assure efficient and orderly sequence of installation of interdependent construction elements.

B. Coordinate completion and clean up of Work of separate sections in preparation for Substantial Completion.

C. Coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents to minimize disruption of OWNER'S activities.

1.4 FIELD ENGINEERING

A. Confirm drawing dimensions and elevations.

B. Submit a copy of as-built drawings in conformance with the Contract Documents.

1.5 PRE-CONSTRUCTION MEETING

A. OWNER will schedule a meeting after Notice of Award.

B. Attendance Required: OWNER, ENGINEER, and CONTRACTOR.

C. Agenda:

1. Submission of executed bonds and insurance certificates.
2. Distribution of Contract Documents.
3. Submission of list of Subcontractors, list of Products, Schedule of Values, and Progress Schedule.

4. Designation of personnel representing parties in Contract.
5. Procedures and processing of field decisions, submittals, and substitutions, Applications for Payments, proposal request, Change orders and Contract Closeout procedures.
6. Scheduling.

D. Record minutes and distribute copies within three (3) days after meeting to participants and those affected by decisions made.

1.6 PROGRESS MEETINGS

A. OWNER will schedule and administer meetings throughout progress of the Work.

B. Make arrangements for meetings, prepare agenda with copies for participants, preside at meetings.

C. Attendance Required: CONTRACTOR, major Subcontractors and Suppliers, OWNER, and ENGINEER, as appropriate to agenda topics for each meeting.

D. Agenda:

1. Review minutes of previous meetings.
2. Review of Work progress.
3. Field observations, problems, and decisions.
4. Identification of problems, which impede planned progress.
5. Review of submittals schedule and status of submittals.
6. Review of off-site fabrication and delivery schedules.
7. Maintenance of progress schedule.
8. Corrective measures to regain projected schedules.
9. Planned progress during succeeding work period.
10. Coordination of projected progress.
11. Maintenance of quality and work standards.
12. Effect of proposed changes on progress schedule and coordination.
13. Other business relating to the Work.

E. Record minutes and distribute copies within two (2) days after meeting to participants and those affected by decisions made.

1.7 PRE-INSTALLATION MEETING

A. When required in individual specification sections, convene a preinstallation meeting at work site prior to commencing work of the section.

B. Require attendance of parties directly affecting, or affected by, work of the specific section.

C. Notify OWNER five (5) days in advance of meeting date.

D. Prepare agenda and preside at meeting:

1. Review conditions of installation, preparation and installation procedures.
2. Review coordination with related work.

E. Record minutes and distribute copies within two days after meeting to participants and those affected by decisions made.

Part 2. PRODUCTS

Not used

Part 3. EXECUTION

Not used

END OF SECTION

SECTION 01300
SUBMITTALS

Part 1. GENERAL

1.1 SECTION INCLUDES

A. Submittal procedures.
B. Construction progress schedules.
C. Manufacturer's certificates

1.2 RELATED SECTIONS

A. Section 01340 - Shop Drawings
B. Section 01400 - Quality Control
C. Section 01410 - Testing Laboratory Services
D. Section 01700 - Contract Closeout
E. Section 01740 - Warranties and Bonds

1.3 SUBMITTAL PROCEDURES

A. Transmit each submittal with a transmittal letter, except Shop Drawings which will be submitted as specified in Section 01340.

B. Identify Project, Contractor, Subcontractor or supplier; pertinent drawing and detail number, and specification section number, as appropriate.

C. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.

D. Schedule submittals to expedite the Project, and deliver to Engineer with a copy to Owner. Coordinate submission of related items.

E. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.

F. Provide space for Contractor and Engineer review stamps.

G. Revise and resubmit, identify all changes made since previous submission.

H. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with provisions.

I. Submittals not requested will not be recognized or processed.

1.4 CONSTRUCTION PROGRESS SCHEDULES

A. Submit initial schedule in duplicate within 10 days after date established in Notice to Proceed.

B. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.

C. Submit revised schedules with each Application for Payment, identifying changes since previous version. Progress Reports shall include the following:

1. Listing of target delivery dates for material.
2. A narrative of any problem experienced by the Contractor that could impact progress.

D. Submit a horizontal bar chart with separate line for each section of Work, identifying first work day of each week.

1.5 MANUFACTURER CERTIFICATES

A. Submit certifications by manufacturer to Engineer for all materials required on the project, in quantities specified for Product Data.,

B. Indicate material of Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certification as appropriate.

C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

Part 2. PRODUCTS

Not Used

Part 3. EXECUTION

Not Used.

END OF SECTION

SECTION 01340
SHOP DRAWINGS

Part 1. GENERAL

1.1 REQUIREMENTS INCLUDE

A. Shop drawing submittal procedures.
B. ENGINEER'S review.
C. Shop drawing schedule.
D. Number of copies.
E. Project record documents.

1.2 RELATED SECTIONS

A. Standard General Conditions.
B. Supplementary Conditions
C. Section 01300 - Submittals.

1.3 SHOP DRAWING SUBMITTAL PROCEDURES

A. Coordinate and check all Shop Drawings furnished by suppliers and Subcontractors for accuracy and for conformance with requirements of the Contract Documents.

B. B. Attach a copy of a Shop Drawing Transmittal form to each group of Shop Drawings, manufacturer's literature, equipment data and samples submitted. Use a sufficient number of Shop Drawing Transmittal forms to provide for the following:

1. Items on a single transmittal form pertain to the same Specification Section.
2. Items on a single transmittal form are either all original submittals or the same number resubmittal.
3. Each material sample is listed on a separate transmittal form.

C. Number each submittal consecutively and insert the number in the space provided on the transmittal form. Assign re-submittals the same transmittal number as the original with a suffix of a sequential letter to indicate the resubmittal. For example, the first resubmittal or submittal 25 would be number 25A.

D. Insert the applicable Specification Section number in the space provided.

E. Enter the number of each item Submitted.

F. Indicate whether the submittal is an original submittal, a first resubmittal or a higher numbered resubmittal by checking the proper box.

G. Indicate the number of resubmittal for second or higher number re-submittals.

H. Complete the information required under the column headings "Manufacturer", "Manufacturer's Number", "Revision Number" and "Subject". Select a brief title under "Subject" which clearly distinguishes the equipment or material covered by the transmittal from other equipment and material furnished under the Contract.

I. Complete the certification at the bottom of the Shop Drawing Transmittal form indicating whether or not the submittal is in strict accordance with the Contract Documents. Specifically note all deviations, if any, from the Contract Documents and reasons therefore in the space provided on the Shop Drawing Transmittal form or in a referenced serial letter.

J. Sign and date the Shop Drawing Submittal form.

K. Submittals which do not have a fully completed Shop Drawings Transmittal form will be returned along with un-reviewed attachments. Such submittals, even though incomplete, will be counted as a submittal. See Supplementary Conditions.

1.4 1.4 ENGINEER'S REVIEW

A. ENGINEER'S review will be completed within a reasonable time after receipt by ENGINEER of each submittal in proper sequence and will be returned to CONTRACTOR with one of the following markings:

1. "No Exception Taken" indicates submittal has been reviewed and appears to be in conformance with requirements of the Contract Documents. CONTRACTOR may proceed with construction shown on the submittal.
2. "Make corrections noted" indicates submittal appears to be in conformance with requirements of the Contract Documents. CONTRACTOR shall incorporate the corrections noted and may proceed with construction shown on the submittal. No resubmittal is required.
3. "Revise and Resubmit" indicates submittal does not appear to be in conformance with the Contract Documents. ENGINEER'S comments will be noted on the submittal or in a separate letter. CONTRACTOR shall recheck, make necessary revisions and resubmit.
4. "Reference" indicates submittal gives general information incidental to but not required for construction.

B. Review of conformance with design concepts and compliance with Contract Documents does not require ENGINEER to review features solely related to construction or all dimensions, quantities and other data. CONTRACTOR shall not rely on ENGINEER'S approval as a verification or check of all such items in the submittal or of satisfactory and safe installation and construction.

CONTRACTOR shall verify all fabrication and installation requirements, quantities and dimensions.

1.5 SHOP DRAWING SCHEDULE

A. Include the following:

1. Description of each submittal.
2. Date by which each submittal will be delivered to ENGINEER.
3. Date by which each submittal must be approved to maintain construction schedule.
4. Relevant Specification Section Reference.

B. Allow reasonable time for ENGINEER to review Shop Drawings and for possible resubmittal.

1.6 NUMBER OF COPIES

A. Submit the following:

1. Four (4) copies in addition to the number the CONTRACTOR wants returned of each Shop Drawing which has been specifically prepared for the Work.
2. Five (5) copies in addition to the number the CONTRACTOR wants returned of all pre-printed manufacturer's data, brochures, Suppliers, information and other information submitted as Shop Drawings.
3. Five (5) samples except as otherwise specified.

1.7 PRESENTATION

A. Present in a clear and thorough manner.

B. Identify field dimensions, show relation to adjacent or critical features or Work.

C. Provide space for CONTRACTOR and ENGINEER review stamps.

D. Use sheet size of not less than 8% by 11 inches and not more than 28 by 40 inches.

Part 2. PRODUCTS

Not used

Part 3. EXECUTION

Not used

END OF SECTION

SECTION 01400
QUALITY CONTROL

Part 1. PART 1 GENERAL

1.1 SECTION INCLUDES

A. Quality assurance - control of installation.
B. Tolerances.
C. References.
D. Inspecting and testing laboratory services.
E. Manufacturers, field services and reports.

1.2 RELATED SECTIONS

A. Section 01300 Submittals: Submission of manufacturers' instructions and certificates.
B. Section 01410 Testing Laboratory Services.

1.3 QUALITY ASSURANCE - CONTROL OF INSTALLATION

A. Monitor quality control over suppliers, manufacturers, Products, services, site conditions and workmanship, to produce Work of specified quality.

B. Comply with manufacturers' instructions, including each step in sequence.

C. Should manufacturers' instructions conflict with Contract Documents, request clarification from ENGINEER before proceeding.

D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

E. Perform Work by persons qualified to produce workmanship of specified quality.

1.4 TOLERANCES

A. Monitor tolerance control of installed Products to produce acceptable Work. Do not permit tolerances to accumulate.

B. Comply with manufacturers' tolerances. Should manufacturers' tolerances conflict with Contract Documents, request clarification from ENGINEER before proceeding.

C. Adjust Products to appropriate dimensions; position before securing Products in place.

1.5 REFERENCES

A. For Products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. Conform to reference standard by date of issue current on date of Contract Documents, except where a specific date is established by code.

C. Obtain copies of standards where required by product specification sections.

D. The contractual relationship, duties, and responsibilities of the parties to the agreement nor those of the Engineer shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.6 INSPECTION AND TESTING SERVICES

A. Contractor will appoint and employ services of an independent firm to perform inspecting and testing as specified in Section 01410.

B. The independent firm will perform inspections, tests, and other services as required by the Engineer or the Owner.

C. Inspecting, testing, and source quality control may occur on or off the project site. Perform off-site inspecting or testing as required by the Engineer or the Owner.

D. Reports will be submitted by the independent firm to the Engineer in duplicate, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.

E. Cooperate with independent firm, furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.

1. Notify Engineer and independent firm 24 hours prior to expected time for operations requiring services.
2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.

F. Testing or inspecting does not relieve Contractor to perform Work to contract requirements.

G. If any work is found to be defective in any respect because of a fault of the Contractor, or if any work has been covered over without the approval or consent of the Owner (whether or not it is found to be defective), the Contractor shall be liable for testing costs and all costs of correction, including labor, material, services or required consultants, additional

supervision, and the Owner's administration costs. Said costs will be charged to the Contractor by deducting inspection and testing charges from the contract price.

Part 2. PRODUCTS

Not used

Part 3. EXECUTIONS

Not used

END OF SECTION

SECTION 01410
TESTING LABORATORY SERVICES

Part 1. PART 1 GENERAL

1.1 SECTION INCLUDES

A. Selection and payment.
B. Contractor submittals.
C. Laboratory responsibilities.
D. Laboratory reports.
E. Limits on testing laboratory authority.
F. Contractor responsibilities.
G. Schedule of inspections and tests.

1.2 RELATED SECTIONS

A. General Conditions: Inspections, testing, and approvals required by public authorities.
B. Section 01300 - Submittals: Manufacturer's certificates.
C. Section 01400 - Quality Control
D. Section 01700 - Contract Closeout: Project record documents.
E. Contract Drawing Specification Requirements: Inspections and tests required, and standards for testing.

1.3 REFERENCES

A. ASTM C1077 - Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.

B. ASTM D3740 - Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.

C. ASTM E329 - Practice for Use in the Evaluation of Inspection and Testing Agencies as Used in Construction.

D. ASTM E543 - Practice for Determining the Qualification of Nondestructive Testing Agencies.

E. ASTM E548 - Practice for Preparation of Criteria for Use in the Evaluation of Testing Laboratories and Inspection Bodies.

F. ASTM E699 - Practice for Criteria for Evaluation of Agencies Involved in Testing, Quality Assurance, and Evaluating Building Components in Accordance with Test Methods Promulgated by ASTM-Committee E6.

1.4 SELECTION AND PAYMENT

A. Employment and payment for services of an independent testing laboratory to perform specified inspecting and testing, by Contractor

B. Employment - of testing laboratory in no way relieves Contractor of obligation to perform Work in accordance with requirements of Contract Documents.

1.5 QUALITY ASSURANCE

A. Comply with requirements of ASTM C1077, ASTM D3740, ASTM D4561, ASTM E329, ASTM E543, ASTM E548, and ASTM E699.

B. Laboratory: Authorized to operate in State in which Project is located.

C. Laboratory Staff: Maintain a full time registered Engineer on staff to review services.

D. Testing Equipment: Calibrated at reasonable intervals with devices of an accuracy traceable to either National Bureau of Standards or accepted values of natural physical constants.

1.6 CONTRACTOR SUBMITTALS

A. Prior to start of Work, submit testing laboratory name, address, and telephone number, and names of full time registered Engineer and responsible officer.

B. Submit copy of report of laboratory facilities inspection made by materials Reference Laboratory of National Bureau of Standards during most recent inspection, with memorandum of remedies of any deficiencies reported by the inspection.

1.7 LABORATORY RESPONSIBILITIES

A. Test samples of mixes submitted by Contractor.

B. Provide qualified personnel at site. Cooperate with Engineer and Contractor in performance of services.

C. Perform specified inspecting, sampling, and testing of Products in accordance with specified standards.

D. Ascertain compliance of materials and mixes with requirements of Contract Documents.

E. Promptly notify Engineer and Contractor of observed irregularities or non-conformance of Work or Products.

F. Perform additional inspection and tests required by Engineer.

1.8 LABORATORY REPORTS

A. After each inspection and test, promptly submit three (3) copies of laboratory report to Engineer, and to Contractor.

B. Include:

1. Date issued,
2. Project title and number,
3. Name of inspector,
4. Date and time of sampling or inspection,
5. Identification of product and specifications section,
6. Location on the site,
7. Type of inspection or test,
8. Date of test,
9. Results of tests,
10. Conformance with Contract Documents.

C. When requested by Engineer or owner, provide interpretation of test results.

1.9 LIMITS ON TESTING LABORATORY AUTHORITY

A. Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.

B. Laboratory may not approve or accept any portion of the Work.

C. Laboratory may not assume any duties of Contractor.

D. Laboratory has no authority to stop the Work.

1.10 CONTRACTOR RESPONSIBILITIES

A. Deliver to laboratory at designated location, adequate samples of materials proposed to be used which require testing, along with proposed mix designs.

B. Cooperate with laboratory personnel, and provide access to the Work and to manufacturers, facilities.

C. Provide incidental labor and facilities:

1. to provide access to Work to be tested,
2. to obtain and handle samples at the site or at source of Products to be tested,
3. to facilitate tests and inspections,
4. to provide storage and curing of test samples.

D. Notify Engineer and laboratory 24 hours prior to expected time for operations requiring inspecting and testing services.

1.11 SCHEDULE OF INSPECTIONS AND TESTS

A. Provide supervision, labor, equipment, materials to conduct the tests and inspection.

Part 2. PRODUCTS

Not Used

Part 3. EXECUTION

Not Used

END OF SECTION

SECTION 01600
MATERIAL AND EQUIPMENT

Part 1. GENERAL

1.1 SECTION INCLUDES

A. Products.
B. Transportation and handling.
C. Storage and protection.
D. Product options.
E. Substitutions.

1.2 RELATED SECTIONS

A. Section 01300 - Submittals.
B. Section 01400 – Quality Control: Product quality monitoring.

1.3 PRODUCTS

A. Product: Means new material, -machinery, components, fixtures and systems forming the work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the work. Product may also include existing materials or components required for reuse.

B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.

C. Provide interchangeable components of the same manufacture for components being replaced.

1.4 TRANSPORTATION AND HANDLING

A. Transport and handle Products in accordance with manufacturer's instructions.

B. Promptly inspect shipments to ensure that Products comply with requirements, quantities are correct, and Products are undamaged.

C. Provide equipment and personnel to handle Products by methods to prevent soiling, disfigurement, or damage.

1.5 STORAGE AND PROTECTION

A. Store and protect Products in accordance with manufacturers' instructions.

B. Store with seals and labels intact and legible.

C. Store sensitive Products in weather tight, climate controlled, enclosures in an environment favorable to Product.

D. For exterior storage of fabricated Products, place on sloped supports above ground.

E. Provide off -site storage and protection when site does not permit on-site storage or protection.

F. Cover Products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of-Products.

G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.

H. Provide equipment and personnel to store Products by methods to prevent soiling, disfigurement, or damage.

I. Arrange storage of Products to permit access for inspection. Periodically inspect to verify Products are undamaged and are maintained in acceptable condition.

J. After receipt of products, the Contractor assumes responsibility for loss and damage including but not limited to breakage, corrosion, weather damage and distortion.

K. Notify Owner and Engineer in writing upon acceptance of a shipment.

1.6 PRODUCT OPTIONS

A. Products Specified by Reference Standards or by Description Only: Any Product meeting those standards or description.

B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.

C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named in accordance with the following article.

1.7 SUBSTITUTIONS

A. Engineer will consider requests for Substitutions only within 15 days after date established in Notice to Proceed.

B. Substitutions may be considered when a Product becomes unavailable through no fault of the Contractor.

C. Document each request with complete data substantiating Compliance of proposed Substitution with Contract Documents.

D. A request constitutes a representation that the Contractor:

1. Has investigated proposed Product and determined that it meets or exceeds the quality level of the specified Product.
2. Will provide the same warranty for the Substitution as for the specified Product.
3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
4. Waives claims for additional costs or time extension that may subsequently become apparent.
5. Will reimburse owner and Engineer for review or redesign services associated with re-approval by authorities.

E. Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

F. Substitution Submittal Procedure:

1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
2. Submit shop drawings, product data, and certified test results attesting to the proposed Product equivalence. Burden of proof is on proposer.
3. The Engineer will notify Contractor in writing of decision to accept or reject request.

Part 2. PRODUCTS

Not used.

Part 3. EXECUTION

Not Used.

END OF SECTION

SECTION 01700
CONTRACT CLOSEOUT

Part 1. GENERAL

1.1 SECTION INCLUDES

A. Closeout procedures.
B. Final cleaning.
C. Project record documents.
D. As-built and conformed to Construction Record Drawings.
E. Warranties and Bonds.

1.2 RELATED SECTIONS

A. Standard General Conditions
B. Supplementary Conditions
C. Section 01025 - Measurement and Payment
D. Section 01300 - Submittals
E. Section 01340 - Shop Drawings
F. Section 01740 - Warranties and Bonds

1.3 CLOSEOUT PROCEDURES

A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's inspection.

B. Provide submittals to Engineer and Owner that are required by governing or other authorities.

C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and balance due.

1.4 FINAL CLEANING

A. Execute final cleaning prior to final project assessment.

B. Clean equipment and fixtures to a sanitary condition with cleaning materials appropriate to the surface and material being cleaned.

C. Clean site; sweep paved areas.

D. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.5 PROJECT RECORD DOCUMENTS

A. Maintain on site, one set of the following record documents; record actual revisions to the Work:

1. Drawings.
2. Specifications.
3. Addenda.
4. Change Orders and other modifications to the Contract.
5. Reviewed Shop Drawings, Product Data, and Samples.
6. Manufacturer's instruction for assembly, installation, and adjusting.

B. Ensure entries are complete and accurate, enabling future reference by owner.

C. Store record documents separate from documents, used for construction.

D. Record information concurrent with construction progress.

E. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:

1. Manufacturer's name and product model and number.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and modifications.

F. Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:

1. Measured elevations of buried piping.
2. Measured locations of existing buried utilities and appurtenances encountered during the progress of the work.
3. Field changes of dimension and detail.
4. Details not on original Contract drawings.

1.6 AS-BUILT AND CONFORMED TO CONSTRUCTION RECORD DRAWINGS

A. As-builts for products: In accordance with Section 01340.

B. Conformed to construction Record Drawings: One complete set of full size prints marked to show changes and revisions to date of the project completion.

1.7 WARRANTIES AND BONDS

A. Submit in accordance with Section 01740.

Part 2. PRODUCTS

Not Used

Part 3. EXECUTION

Not Used

END OF SECTION

SECTION 01740
WARRANTIES AND BONDS

Part 1. GENERAL

1.1 SECTION INCLUDES

A. Preparation and submittal.

B. Time and schedule of submittals.

1.2 RELATED' SECTIONS

A. Instruction to Bidders

B. General Conditions: Performance bond and labor and material payment bonds, warranty, and correction of work.

C. Section 01700 - Contract Closeout: Contract closeout procedures.

D. Section 01700 - Contract Closeout.

E. Contract Drawing Specifications: Warranties required for specific Products or Work.

1.3 FORM OF SUBMITTALS

A. Bind in commercial quality 8-1/2 x 11 inch three ring binders with durable plastic covers.

B. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project; name, address and telephone number of Contractor and supplier; and name of responsible company principal.

C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified, and the name of Product or work item.

D. Separate each warranty or bond with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheets as necessary. List Subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.

1.4 PREPARATION OF SUBMITTALS

A. Obtain warranties and bonds, executed in duplicate by responsible Subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work. Except for items put into use with

Owner's permission, leave date of beginning of time of warranty until the Date of Substantial completion is determined.

B. Verify that documents are in proper form, contain full information, and are notarized.

C. Co-execute submittals' when required.

D. Retain warranties and bonds until time specified for submittal.

1.5 TIME OF SUBMITTALS

A. Make submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.

B. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing the date of acceptance as the beginning of the warranty period.

Part 2. PRODUCTS

Not Used

Part 3. EXECUTION

Not Used

END OF SECTION

EXHIBIT C

To

MSW FLOOR REPAIRS AT THE MID-CONNECTICUT WASTE PROCESSING FACILITY AGREEMENT

TECHNICAL SPECIFICATIONS

TECHNICAL SPECIFICATIONS

Section	Title
02020	Selective Building Demolition
02080	Temporary Construction Barriers
02500	Bituminous Concrete Pavement
03210	Reinforcement Repair
03300	Cast-In-Place Concrete
05120	Structural Steel

TABLE OF CONTENTS

TECHNICAL SPECIFICATIONS
TITLE

END OF TABLE OF CONTENTS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. The General Provisions of the Contract, including the General Conditions and Supplementary General Conditions, apply to the work specified in this Section.

B. Section 03300 – Cast-in-Place Concrete.

C. Section 02080 - Temporary Jersey Barrier with Screen Wall.

1.2 WORK INCLUDED

A. Demolition of designated portions of existing structural floor slab, toppings, reinforcing steel and other materials as shown, specified and required to complete work. Expose sufficiently clean and sound concrete as shown and specified.

B. Removal of existing concrete floor to expose sufficiently clean, sound existing reinforcement for anchorage of new reinforcement as shown and specified.

C. Remove of unsuitable materials from site.

1.3 SUBMITTALS

A. Submit for approval proposed methods, equipment, operating sequence for demolition and removal procedures including coordination for shut-off, capping, temporary services, continuation of utility services and other applicable items to ensure no interruption of Owner's operation.

B. Submit record documents.

1.4 JOB CONDITIONS

A. Conduct demolition to minimize interference with adjacent structures to remain and so as not to interfere with Owner's operation.

B. Provide, erect and maintain, temporary jersey barriers as indicated on drawing, lights and other necessary protective devices. Provide portable high velocity fans for air exchange.

C. Conduct operations with minimum interference to facilities. Maintain and protect egress and access at all times.

D. Do not close or obstruct areas adjacent to the work by the placement or storage of materials. All operations shall be conducted with a minimum interference to adjacent areas.

E. Repair damage to facility to remain, or to any property belonging to the Owner or occupants of the facility.

F. Schedule work to be carried out in this operation so as to avoid interference with Owner's operations and work in the existing facility.

G. Notify the Owner in writing of proposed schedule at least 48 hours prior to commencement of a demolition or removal. Do not start removals without permission of the Owner.

1.5 QUALITY ASSURANCE

A. Reference Standards: Comply with the applicable provisions and recommendations of the following, except as otherwise shown or specified.

1. ASTM C 108 Standard Test Method for Compressive Strength of Hydraulic Cement Mortars.

2. ASTM C 882 Standard Test Method for Bond Strength of Epoxy-Resin Systems Used With Concrete By Slant Shear.

PART 2 – PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 GENERAL

A. All materials removed from existing work shall become the property of Contractor, except for those which Owner has identified and marked for his use. All materials marked by the Owner to remain his shall be carefully removed by the Contractor, so as not to be damaged, and shall be cleaned and stored on or adjacent to the site in a protected place specified by the Owner or loaded onto trucks provided by the Owner.

B. Contractor shall dispose of all demolition materials, debris and all other items not marked by the Owner to remain as his, off the site and in conformance with all existing applicable laws and regulations.

C. Surfaces which are exposed or damaged by any of the removals specified herein, and which will remain as exposed surfaces shall be repaired and refinished by the Contractor with the same or matching materials as the existing adjacent surface or as may be otherwise approved by the Engineer.

D. Pollution Controls: Use temporary enclosures, and other suitable methods to limit the amount of dust, dirt, and debris rising and scattering in the air to the lowest practical level. Comply with governing regulations pertaining to environmental protection. Under no circumstances shall such conditions be allowed to interfere with Owner's operations.

1. Do not use water when it may create hazardous or objectionable conditions such as ice, flooding, and pollution.

2. If water is used in these activities, the usage shall be strictly controlled to confine liquids within the construction area and prevent runoff into the surrounding MSW processing areas.

3. Clean adjacent structures, facilities, and improvements of dust, dirt, and debris caused by demolition operations. Return adjacent areas to conditions existing prior to the start of the work.

4. Use portable high velocity fans at the temporary enclosure areas during proper air flow and/or exchange.

3.2 REMOVALS

A. Remove existing tipping floor concrete, toppings, and exposed reinforcing steel as shown and specified unless otherwise directed by the Engineer. Removal beyond these limits shall be at the Contractor's expense and these excess removals shall be reconstructed to the satisfaction of the Engineer with no additional compensation to the Contractor.

B. Remove existing concrete by means of abrasive blast or hand operated mechanical chipping or jack hammers as shown and specified. Sawcutting to the concrete removal depth is permitted in areas where existing reinforcement is to be removed. Under no circumstances shall water based blasting methods be employed to remove existing concrete.

C. Demolition operations shall remove all loose, damaged, discolored, or otherwise deteriorated existing concrete to expose clean, sound existing concrete free from oil, greases, dirt, and all other foreign materials. Soundness of concrete shall be determined by the Engineer. Where existing reinforcement is shown to remain, chipping shall be done so as to not bend or otherwise damage the reinforcement.

D. Demolition shall produce a surface roughness in the exposed existing concrete surface meeting the requirements specified for surface preparation on the Contract Drawings.

E. All existing reinforcing steel exposed by chipping operations and shown to remain shall be blast cleaned to remove all existing hardened concrete, dust, debris, and other foreign materials.

F. All concrete, reinforcement, structural or miscellaneous metals, and other items contained in or upon the existing floor shall be removed and taken from the site, unless otherwise approved by the Engineer. Demolished items shall not be used in backfill adjacent to structures or in pipe line trenches.

G. After removal of work which will tie into new work or existing work, the point of junction shall be neatly repaired so as to leave only finished edges and surface exposed.

H. Where new anchoring materials including bolts, nuts, hangers, welds, and reinforcing steel, are required to attach new work to the existing work, they shall be included under this Section, except where specified elsewhere.

3.3 INSPECTION

A. Contractor shall examine the substrate and the conditions under which work is to be performed and notify Engineer in writing of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Engineer.

3.4 CLEAN-UP

A. Contractor shall remove from the site all debris resulting from the demolition operations as it accumulates. Upon completion of the work, all materials, equipment, waste, and debris of every sort shall be removed and premises shall be left clean, neat, and orderly.

END OF SECTION 02020

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. The General Provisions of the Contract, including the General Conditions and Supplementary Conditions, apply to the work specified in this Section.

B. Section 02050 – Demolition.

1.2 WORK INCLUDED

A. Providing, setting, resetting, maintaining and removing the temporary construction barriers as shown and specified.

B. Placing the temporary construction barriers to the extent and staging of the MSW floor repair shall be as shown on the Contract Drawings.

1.3 SUBMITTALS

A. Submit for approval proposed operating sequence for installation, materials and anchors for temporary construction barriers.

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 INSTALLATION

A. Contractor shall provide temporary construction barriers as shown and required to protect work from Owner's ongoing processing operations. Temporary barriers shall extend around entire perimeter of active repair stage and shall remain in place until all work in that repair stage is complete and has been returned to Owner for use.

B. Construction barriers shall, as a minimum, consist of paired concrete "jersey" barriers placed back-to-back and anchored together. Screening materials of the height shown shall be securely mounted between the "jersey" barriers to minimize the transfer of debris both into and out of the construction area.

C. Contractor shall design construction barrier system, including interconnection of barrier sections and connection of screening materials, to withstand vehicle impact from Owner's equipment engaged in normal operations with a minimum of damage or displacement of the barrier system itself and to fully protect the work.

D. Contractor shall be responsible for installing, maintaining, and removal of construction barriers including repair of barriers displaced or damaged by Owner's normal operations.

E. Following removal of construction barriers, Contractor shall restore existing floor surfaces to their original condition including, but not limited to:

1. Removal of any anchoring devices and repair of resulting holes.
2. Repair of damage, including damage resulting from displacement of barriers impacted by Owner's equipment engaged in normal operations.

END OF SECTION 02080

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The Contract Drawings, General Conditions and Supplementary General Conditions apply to this Section of the Specifications.

1.2 SUMMARY

A. The work under this Section shall consist of bituminous concrete placed upon a completed processed aggregate base course or upon the surface of an existing pavement. The work shall be installed in accordance with the line, grade, compacted thickness and details shown on the Contract Drawings.

B. The work shall include, but not limited to the following:

1. New pavement.
2. Pavement overlay.
3. Permanent pavement repair.

1.3 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of following, except otherwise indicated:

1. References to "Form 816" means the State of Connecticut Department of Transportation "Standard Specification for Roads, Bridges and Incidental Construction, 2004", including any interim and supplemental specifications.

1.4 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections:

1. Submit Material Certificates of Bituminous Mixture (Class) and Tack Coat signed by material producer and Contractor, certifying that each material item complies with or exceeds specified requirements.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Bituminous Concrete Pavement:

1. Material for Bituminous Concrete Pavement and Bituminous Bases shall comply with Section M.04 of "Form 816".

2. The class of bituminous and compacted thickness shall be as indicated on the Drawings.

PART 3 - EXECUTION

3.1 CONSTRUCTION METHODS

A. Bituminous Concrete for Pavement shall comply with Article 4.06.03 of "Form 816".

END OF SECTION 02500

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. The General Provisions of the Contract, including the General Conditions and Supplementary General Conditions, apply to the work specified in this Section.

B. Section 03300 – Cast-in-Place Concrete.

1.2 WORK INCLUDED

A. Provide, furnish and install new reinforcement to replace existing reinforcement as shown on the Contract Drawings.

B. Fabrication and placement of new reinforcement including bars, ties, and supports.

C. Provide, furnish and install shear pins as shown on Contract Drawings and as specified.

1.3 QUALITY ASSURANCE

A. Reference Standards: Comply with applicable provisions and recommendations of the following, except as otherwise shown or specified:

1. ASTM A 615, Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.

2. ASTM A 706, Low-Alloy Steel Deformed Bars for Concrete Reinforcement.

3. ACI 315, Manual of Standard Practice for Detailing Reinforced Concrete Structures.

4. ACI 318, Building Code Requirements for Structural Concrete.

5. ACI SP66, Detailing Manual.

6. AWS D1.1, Structural Welding Code – Steel.

7. AWS D1.4, Structural Welding Code – Reinforcing Steel.

8. CRSI DA4, Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice.

B. Allowable Placing Tolerances: Comply with ACI 318, Chapter 7 – Details of Reinforcement.

1.4 SUBMITTALS

A. Shop Drawings: Submit for approval the following:

1. Manufacturer's specifications and installation instructions for all materials and reinforcement accessories.

2. Drawings for fabrication, bending, and placement of concrete reinforcement. Comply with ACI 315, Parts A and B. Show bar schedules, diagrams of bent bars, arrangements and assemblies, as required for the fabrication and

placement of concrete reinforcement unless otherwise noted. Splices shall be kept to a minimum. Splices in regions of maximum tension stresses shall be avoided whenever possible.

B. Certificates:

1. Submit 1 copy of steel producer's certificates of mill analysis, tensile and bend tests for reinforcing steel.

1.5 DELIVERY, HANDLING AND STORAGE

A. Deliver concrete reinforcement materials to the site bundled, tagged and marked. Use metal tags indicating bar size, lengths, and other information corresponding to markings shown on placement diagrams.

B. Store reinforcement materials at the site to prevent damage and accumulation of dirt or excessive rust. Store on heavy wood blocking so that no part of it will come in contact with the ground.

PART 2 – PRODUCTS

2.1 MATERIALS

A. Reinforcing Bars:

1. ASTM A 615, Grade 60 for all bars, unless indicated otherwise.
2. Reinforcing bars shown on the Contract Drawings to be welded shall be ASTM A 706.

B. Mechanical Couplers: Reinforcement bars may be spliced with a mechanical connection. This connection shall be a full mechanical connection which shall develop in tension or compression, as required, at least 125 percent of specified yield strength (f_y) of the bar in accordance with ACI 318. Mechanical couplers splicing to existing reinforcing bars shall be the type which are installed using hydraulic pressure grips or by filling coupler sleeves with molten metal.

C. Supports for Reinforcement: Bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcement in place.

1. Use wire bar type supports complying with CRSI recommendations. Do not use wood, brick, or other unacceptable materials.

D. Drilled Dowels

1. Adhesive material for drilled dowels shall be a vinylester resin, epoxy resin, urethane methacrylate, or vinyl urethane resin. Polyester resin shall not be used. The resin shall be a high modulus, moisture insensitive type. The resin shall be packaged in a cartridge type dispensing system with a mixing nozzle. The resin shall be formulated to maintain its bond and integrity under continuous submergence by water. The adhesive anchoring systems shall have an ultimate capacity in excess of 125 percent of the yield strength of the reinforcing steel at an embedment of 12 bar diameters.

2. Acceptable Adhesive Systems:

   a. HIT HY150, manufactured by Hilti Corporation.
   b. HSE 2411, manufactured by Hilti Corporation.
   c. Epcon System Ceramic 6, manufactured by ITW Ramset/Redhead.
   d. Powerfast, manufactured by Powers/Rawl Fastening System.
   e. Or approved equal.

E. Shear Pins

1. Shear pins shall be Hilti 3/8 inch HIT-TZ anchors, minimum 4 7/8 inch long. Anchors shall be carbon steel and shall use the HIT HY150 adhesive system.

2. Each shear pin shall be provided with a nut installed flush with the top of the anchor.

2.2 FABRICATION

A. General: Fabricate reinforcing bars to conform to required shapes and dimensions, with fabrication tolerances complying with CRSI, Manual of Standard Practice. In case of fabricating errors, do not re-bend or straighten reinforcement in a manner that will injure or weaken the materials.

B. Unacceptable Materials: Reinforcement with any of the following defects will not be permitted in the work:

1. Bar lengths, bends, and other dimensions exceeding specified fabrication tolerances.

2. Bends or kinks not shown on approved Shop Drawings.

3. Bars with reduced cross-section due to excessive rusting or other cause.

PART 3 – EXECUTION

3.1 INSPECTION

A. Contractor and his installer shall examine the substrate and the conditions under which concrete reinforcement is to be placed, and notify Engineer in writing of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to Engineer.

3.2 INSTALLATION

A. Cut and remove of existing reinforcement as required.

B. Comply with the applicable recommendations of specified codes and standards, and CRSI, Manual of Standard Practice, for details and methods of reinforcement placement and support.

C. Clean reinforcement to remove loose rust and mill scale, earth, ice, and other materials which reduce or destroy bond with concrete.

D. Position, support and secure reinforcement against displacement during concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers and hangers, as required.

1. Place reinforcement to obtain the minimum concrete coverage shown. Arrange, space, and securely tie bars and bar supports together with 16 gauge wire to hold reinforcement accurately in position during concrete placement operations. Set wire ties so that twisted ends are directed away from exposed concrete surfaces.

2. Prior to placement of concrete, Contractor shall demonstrate to Engineer that the specified cover of reinforcement has been attained, by using a surveying level or string line.

3. Metal supports subject to corrosion shall not touch exposed concrete surfaces.

E. Provide sufficient numbers of supports of strength required to carry reinforcement. Do not place reinforcing bars more than 2 inches beyond the last leg of any continuous bar support. Do not use supports as bases for runways for concrete conveying equipment or similar construction loads.

F. Splices:

1. Lap Splices: Provide standard reinforcement splices by lapping ends, placing bars in contact, and tying tightly with wire. Comply with requirements shown for minimum lap of spliced bars.

2. Mechanical Couplers:

a. Provide mechanical couplers where indicated on the Contract Drawings. At Contractor's option, approved mechanical coupling devices may be used to splice reinforcement where lap splices are indicated on the Contract Drawings.

b. Mechanical butt splices shall be in accordance with the recommendation of the manufacturer of the mechanical splicing device. Butt splices shall develop 125 percent of the specified minimum yield tensile strength of the spliced bars or of the smaller bar in transition splices. Bars shall be flame dried before butt splicing. Adequate jibs and clamps or other devices shall be provided to support, align, and hold the longitudinal centerline of the bars to be butt spliced in a straight line.

G. Drilled Dowels:

1. Drilled dowels shall be reinforcing dowels set in a resin adhesive in a hole drilled into hardened concrete.

2. Holes shall be drilled to the adhesive anchor system manufacturer's recommended diameter and depth to develop the required pullout resistance but shall not be greater in diameter than ¼ inch more than the nominal bar diameter nor less than 12 times the nominal bar diameter in depth.

3. The hole shall be drilled by methods which do not interfere with the proper bonding of the resin. Only masonry type drill bits shall be used.

4. Existing reinforcing steel in the vicinity of proposed holes shall be located prior to drilling. The location of holes to be drilled shall be adjusted to avoid drilling through or nicking any existing reinforcing bars only after approval by the Engineer.

5. The hole shall be brushed (non-metallic bristle brush only) and blown clean with clean, dry compressed air to remove all dust and loose particles.

6. Resin shall be injected into the hole through the injection system mixing nozzle (and any necessary extension tubes) placed to the bottom of the hole. The discharge end shall be withdrawn as resin is placed but kept immersed to prevent formation of air pockets. The hole shall be filled to a depth that insures that excess material is expelled from the hole during dowel placement.

7. Dowels shall be twisted during insertion into the partially filled hole so as to guarantee full wetting of the bar surface with resin. The bar shall be inserted slowly enough to avoid developing air pockets.

H. Shear pins shall be installed where shown on the Contract Drawings per manufacturer's instructions and recommendations. Prior to installing nuts, the threads inside the nut shall be coated with epoxy adhesive. The nuts shall be installed flush with the top of the anchor and not disturbed while the epoxy cures.

I. Welding of reinforcement shall be permitted only where shown on the Contract Drawings. Welding of reinforcing bars to carbon steel plate shall follow the requirements of AWS D1.4 and AWS D1.1.

3.3 INSPECTION OF REINFORCEMENT

A. Concrete shall not be placed until the reinforcement is inspected and permission for placing concrete is granted by Engineer. All concrete placed in violation of this provision will be rejected.

B. Testing of Drilled Dowels: Contractor shall employ a testing agency to perform field quality control testing of the drilled dowel installation. After completion of the manufacturer's recommended curing period and prior to placement of connecting reinforcing, 10 percent of drilled dowels installed shall be proof-tested for pullout. The drilled dowels shall be tensioned to 60 percent of the specified yield strength. Where dowels are located less than 6 bar diameters from the edge of concrete, the Engineer will determine the tensile load required for the test. If any dowels fail, all installed dowels shall be tested. Those dowels which failed shall be reinstalled and retested at the Contractor's expense.

END OF SECTION 03210

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Condition Sections, apply to work in this Section.

B. Section 02020 – Selective Building Demolition

C. Section 03210 – Reinforcement Repair

1.2 SUMMARY

A. This Section specifies cast-in place concrete, including formwork, reinforcement, concrete materials, mix design, placement procedures and finish to complete the repair to the structural slab and incidental to complete the concrete work for this project as shown on the Contract Drawings and/or as specified.

B. All labor, materials, equipment, services and transportation required to complete cast-in-place concrete work shown on Drawings, as specified herein, or both, including but not limited to items noted below:

1. Furnishing, placing, curing, finishing, and protection of reinforced cast-in-place concrete (normal weight) above and below grade, including walls, slabs and topping slabs where shown.

2. Furnishing and erection of formwork, shoring and removal of same.

3. Furnishing and placing of reinforcing steel and related positioning and securing accessories.

4. Furnishing and installation of admixtures, inserts for connections to steel members, waterstops, and similar items in conjunction with concrete work.

5. Installation of items furnished by other sections (such as anchors, sleeves for mechanical, plumbing and electrical work, and required to be cast into concrete.

6. Unless specifically excluded, furnishing and installation of any other items of cast-in-place concrete work indicated on drawings, specified, or obviously needed to make work of this Section complete.

1.3 DEFINITIONS

A. Cementitious Materials: Portland cement alone in cementitious material ratio.

1.4 REFERENCES

A. Except as otherwise specified herein, perform work in accordance with specifications noted below, including latest editions of applicable specifications, codes, and standards cited therein, and latest applicable addenda and supplements. Keep copies of these items available in shop and field.

1. 1996 BOCA National Code with 1999 Connecticut supplement and 2000 Connecticut Amendment.

2. "Building Code Requirements for Reinforced Concrete" (ACI 318-95), American Concrete Institute.

3. "Specifications for Structural Concrete for Buildings" (ACI 301-96), American Concrete Institute.

4. "Specifications for Tolerances for Concrete Construction and Materials" (ACI 117-90).

5. "Detailing Manual" (ACI SP-66), 1994, American Concrete Institute.

6. "Manual for Standard Practice" (MSP-1-96), Concrete Reinforcing Steel Institute (CRSI).

7. "Structural Welding Code – Reinforcing Steel" (AWS D1.4-92), American Welding Society.

8. "Manual of Concrete Practice 1997", Volumes 1 through 5, American Concrete Institute for ACI Standards and Recommended Practices referred to in this Section.

9. American Society for Testing and Materials (ASTM) Standards referenced in this Section.

B. Any material or operation specified by reference to published specifications of manufacturer or published standard shall comply with said specification or standards. In case of conflict between referenced specifications, most stringent requirement shall govern. In case of conflict between referenced specifications and Project Specifications, Project Specifications shall govern.

1.5 SUBSTITUTIONS

A. Substitutions for member sizes, type(s) of concrete, details or any other modifications proposed by Contractor will be considered by Engineer only under the following conditions:

1. That request has been made and accepted prior to submission of Shop Drawings.

2. That there is a substantial cost advantage or time advantage to Owner, or that proposed revision is necessary to obtain required materials or methods at proper times to accomplish work in time scheduled.

3. That sufficient sketches, engineering calculations, and other data have been submitted to facilitate checking by Engineer, including cost reductions or savings in time to complete work.

1.6 SUBMITTALS

A. Product Data: For each type of manufactured material and product indicated.

B. Design Mixes: For each concrete mix. Include alternate mix designs when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.

1. Indicate amounts of mix water to be withheld for later addition at project site.

C. The Contractor shall submit detailed steel reinforcement shop drawings which clearly show location, splicing, grade, cover, sizes, and spacing of all reinforcing and wire fabric. Provide schedules and diagrams that shall indicate bends, sizes and lengths of reinforcing. All reinforcement in concrete walls and slab shall be shown to scale in elevation (1/8" = 1'-0"). All construction joints, as required on the Contract Drawings/Specifications or requested by the Contractor, shall be shown with any additional reinforcement required. Show and locate all concrete openings, including those required for other Divisions. Any drawings submitted without showing construction joints and openings will be rejected and not be reviewed. Steel reinforcement shop drawings shall be prepared in accordance with ACI 315 "Details and Detailing of Concrete Reinforcing". Provide location of all reinforcement supports.

D. Formwork Shop Drawings: Prepared by or under the supervision of a qualified professional engineer detailing fabrication, assembly, placement rate of concrete, and support of formwork. Formwork shall be designed to comply with ACI 347R. Design and engineering of formwork are Contractor's responsibility.

1. Shoring and Reshoring: Indicate proposed schedule and sequence of stripping formwork, shoring removal, and installing and removing reshoring.

E. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated, based on comprehensive testing of current materials:

F. Material Certificates: Signed by manufacturers certifying that each of the following items complies with requirements:

1. Cementitious materials and aggregates.
2. Form materials and form-release agents.
3. Steel reinforcement and reinforcement accessories.
4. Admixtures.
5. Waterstops.
6. Curing materials.
7. Bonding agents.
8. Adhesives.
9. Joint filler and joint sealant.

G. Minutes of pre-installation conference.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: An experienced installer who has completed concrete work similar in material, design, and extent to that indicated for this project and whose work has resulted in construction with a record of successful in-service performance.

B. Professional Engineer Qualifications: A Professional Engineer, employed by Concrete Contractor, who is legally qualified to practice in Connecticut and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for formwork and shoring and reshoring installations that are similar to those indicated for this project in material, design, and extent.

C. Concrete Ready-Mix Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products complying with ASTM C 94 requirements for production facilities and delivery equipment.

1. Concrete Ready-Mix Manufacturer must be certified according to the National Ready Mixed Concrete Association's Certification of Ready Mixed Concrete Production Facilities.

D. Testing Agency Qualifications: An independent testing agency, acceptable to authorities having jurisdiction, qualified according to ASTM C 1077 and ASTM E 329 to conduct the testing indicated, as documented according to ASTM E 548.

1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.

E. Source Limitations: Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant, each aggregate from one source, and each admixture from the same manufacturer.

F. Welding: Qualify procedures and personnel according to AWS D1.4, "Structural Welding Code-Reinforcing Steel."

G. Codes and Standards: Comply with the latest edition of the following codes, specifications and standards except where more stringent provisions are shown or specified.

1. ACI 318 "Building Code Requirements for Reinforced Concrete".

2. ACI 301, "Specification for Structural Concrete for Buildings."

3. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."

4. Concrete Reinforcing Steel Institute (CRSI) "Manual of Standard Practice".

1.8 TESTING AGENCY/SPECIAL INSPECTOR/QUALITY ASSURANCE

A. The Contractor will engage and pay for an independent qualified commercial testing laboratory, as approved by the Engineer, to test concrete used on this project.

B. Testing required under Paragraph 2.7 "Proportions", shall be by an independent commercial laboratory as approved by the Engineer and at the Contractor's expense.

C. Quality Control:

1. Compression Tests:

a. Tests shall be made in conformance with ASTM C-39. Each test shall consist of four (4) cylinders made and tested by the laboratory during the progress of the project, tested as follows:

1) One (1) after curing seven (7) days in the field;
2) Two (2) after curing 28 days in the laboratory; and
3) One (1) for spare in case of low break.

b. At least one (1) test shall be made for every 25 cubic yards of concrete or fraction thereof, placed in any one concreting operation on any given day.

c. Concrete for each set of cylinders shall be from any one (1) sample, representative of the entire batch.

d. Specimens shall be made, cured and tested in accordance with ASTM C-31.

e. When concrete is pumped, test cylinders shall be made from concrete taken at the discharge end of the pumping train.

2. Additional tests as follows shall be made from the concrete taken to mold the cylinders:

a. Slump test - in accordance with ASTM C-143.
b. Air-entrainment - in accordance with ASTM C-231.

3. The Contractor shall notify the Engineer and the testing laboratory 24 hours before concrete placement and shall cooperate in the making of cylinders by the testing laboratory.

4. Concrete Temperature: ASTM C1064; one test hourly when air temperature is 40 Deg F and below 80 Deg F and above.

1.9 TEST REPORT SUBMITTALS

A. Test Reports:

1. Submitted Test Reports shall include:

a. Name of job.
b. Date and location of placement.
c. Class of concrete.
d. Mix data, including proportions, time batched, time of discharge, concrete temperature.
e. Slump.
f. Air content.
g. Compressive strength.
h. Age and condition of test cylinders.
i. Type of fracture.
j. Method of curing.
k. Inspector name.

2. A copy of all the reports shall be promptly forwarded by the testing laboratory to the Engineer with one (1) additional copy each to the Contract, concrete supplier, and Special Inspector.

B. Test Results:

1. The average of the tests for any portion of the structure shall equal or exceed the specified 28 day compressive strength.

2. No single strength test shall have a value less than 90% of the specified compressive strength.

3. Where the concrete does not comply with these requirements, the Engineer may require other tests such as cored cylinders (in conformance with ASTM C-42) or other tests, all at the Contractor's expense. Should the concrete fail to pass such tests, it shall be removed and replaced at no additional cost to the Owner. In

addition, the Contractor may be required to remove and replace sound portions of structure as necessary to insure safety, appearance and durability of the structure. Additional tests, strengthening or removal and replacement of parts of structure and any costs associated with delay of project shall be at the Contractor's expense.

1.10 REINFORCING INSPECTION

A. Inspect all reinforcing placement for its conformance to the Contract Documents. Special Inspector to report to the Owner, Architect/Engineer, and Contractor before placement of concrete, if placement of reinforcing does not conform to Contract Documents.

B. Contractor to operate with the Engineer, the reinforcing inspection service and the Architect/Engineer to ensure that reinforcing is placed properly. Contractor to notify the inspection service, the Special Inspector and Architect/Engineer 24 hours prior to time reinforcing can no longer be inspected due to formwork placement and/or concreting. Contractor to rectify reinforcing placement errors that are identified by the inspection service and/or Architect/Engineer at no additional cost to the Owner.

C. Concrete reinforcing reports to obtain the following information:

1. Client
2. Project
3. Location of inspection
4. Report number
5. Compliance with specification requirements
6. Discrepancies and action taken to remedy
7. Inspector's name.

1.11 CURING RECORDS

A. Testing and inspection services to maintain records of curing procedures performed by the Contractor for all concrete retaining walls, slabs on grade and supported slabs.

B. Curing records to be supplied to the Architect/Engineer, Owner's Representative, Contractor and Building Official with the following information:

1. Client
2. Project
3. Location of concrete
4. Time and date of concrete placement
5. Time and date of implementation of curing procedures
6. Curing procedures and materials used.
7. Duration of curing procedures
8. Weather conditions at time of implementation of curing procedures
   a. Temperature
   b. Relative humidity
   c. Concrete temperature at time of placement
   d. Approximate wind velocity in vicinity of concrete placed.
9. Inspector's name

1.12 DELIVERY, STORAGE, AND HANDLING

A. Deliver marked bundle of bars, store, and handle steel reinforcement to prevent bending and damage.

1. Avoid damaging coatings on steel reinforcement and surface contamination which would impair its bonding qualities.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

A. Smooth-Formed Finished Concrete: Form-facing panels that will provide continuous, true, and smooth concrete surfaces. Furnish in largest practicable sizes to minimize number of joints. Exposed concrete surfaces shall be new material without patches using a minimum of pieces and placed symmetrically.

1. Plywood, metal, or other approved panel materials shall conform with ACI 347, Chapter 4.

2. Exterior-grade plywood panels, suitable for concrete forms, complying with DOC PS 1, and as follows:

a. Matte Finish: Structural 1, B-B, or better, milled oiled and edge sealed.

B. Rough-Formed Finished Concrete (i.e., Footings): Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

C. Chamfer Strips: Wood, metal, PVC, or rubber strips, 3/4 by 3/4 inch (19 by 19 mm), minimum.

D. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and will not impair subsequent treatments of concrete surfaces.

1. Formulate form-release agent with rust inhibitor for steel form-facing materials.

E. Form Ties: Factory-fabricated, removable or snap-off metal or glass-fiber-reinforced plastic form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.

1. Furnish units that will leave no corrodible metal closer than 1 inch (25 mm) to the plane of the exposed concrete surface.

2. Furnish ties that, when removed, will leave holes not larger than 1 inch (25 mm) in diameter in concrete surface.

3. Furnish ties with integral water-barrier plates to walls indicated to receive dampproofing or waterproofing.

2.2 REINFORCEMENT MATERIALS

A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.

B. Plain-Steel Welded Wire Fabric: ASTM A 185, fabricated from as-drawn steel wire into flat sheets. Slab on-grade shall be epoxy coated welded wide fabric: ASTM A 884/A Class A coated.

2.3 REINFORCEMENT ACCESSORIES

A. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete or fiber-reinforced concrete of greater compressive strength than concrete, and as follows:

1. For concrete surfaces exposed to view where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected or CRSI Class 2 stainless-steel bar supports.

2. When epoxy coated reinforcing is used, accessories shall be epoxy coated and tie wire shall be nylon, epoxy or plastic coated.

2.4 CONCRETE MATERIALS

A. Cement Domestic Portland Cement: ASTM C 150, Type II or blended hydraulic cement, ASTM C595, Type 1P (M5). Use one brand from one source throughout.

B. Normal-Weight Course Aggregate: ASTM C 33, uniformly graded, crushed stone from approved source free of dirt and organic content. Maximum size aggregate 3/4".

C. Fine Aggregate: Natural sand consisting of clean, hard durable uncoated particles. Organic content shall be determined according to ASTM C-40. Sand shall conform to ASTM C-33.

D. Water: Potable and complying with ASTM C 94, free of oils, salt, alkali or organic matter.

2.5 ADMIXTURES

A. General: Admixtures certified by manufacturer to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material and to be compatible with other admixtures and cementitious materials. Do not use admixtures containing calcium chloride, thiocynanates and admixtures contains more than .05 percent chloride ions.

B. Air-Entraining Admixture: ASTM C 260.

C. Water-Reducing Admixture: ASTM C 494, Type A.

D. High-Range, Water-Reducing Admixture (Super-Plasticizer): ASTM C 494, Type F.

E. Water-Reducing and Accelerating Admixture: ASTM C 494, Type E.

F. Water-Reducing and Retarding Admixture: ASTM C 494, Type D.

2.6 OTHER MATERIALS

A. Repair mortar shall be a pre-packaged rapid strength cementitious repair mortar with a minimum one-day compression strength of 4500 psi, 28 day compression strength of 9000 psi and a 28-day bond strength of 2500 psi. An acceptable equivalent of EMACO T415 manufactured by ChemTex, Inc. or an approved equal.

B. Curing and sealing compound shall be the acceptable equivalent of Master Builder's Masterkure, CS-309, W.R. Meadows, Inc., or Euclid Chemical's Super Floor Coat that conforms to ASTM C-309. Type 1, Class B. Curing compound shall have a maximum water loss of 0.035 GMS/Sq.Cm.

C. Curing polyethylene film shall be white opaque, reinforced 6.0 mils thick, complying with ASTM C171.

D. Curing paper shall be the acceptable equivalent of Sisalkraft Paper "Orange Label" that conforms with ASTM C-171, Type "I".

E. Waterstop shall be self-expanding sodium bentonite. Waterstop-RX cold joint water stop volclay waterproofing system as manufactured by American Colloid Company, Conseal CS-231; Concrete Sealant, Inc., Swellseal Joint or DeNeef Construction Chemicals, Inc.

F. Expansion Bolts: Shall be hot-dipped galvanized bolts conforming to Federal Spec. FF-S-325 Group II Type 4, Class 1. Allowable pullout and shear valves shall be based on ASTM E488 Test Method. Use one of the following:

1. "Molly Parabolt", USM Corp.
2. "Kwik Bolt II", Hilti Corp.
3. "Red Head Trubolt Wedge Anchor" ITW Ramset/Redhead.

H. Epoxy cement bond agent shall be a three component epoxy resin cement blended formulated as a bonding agent. An acceptable equivalent of Sika Armatec 110 EPOCFM as manufactured by Sika Corporation, Corra Bond, as manufactured by the Euclid Chemical Company or approved equal.

2.7 PROPORTIONS

A. Concrete mix proportions shall be selected to produce an average compressive strength exceeding the required 28 day compressive strength in accordance with ACI 318, Section 4.3, Proportioning on Basis of Field Experience, or Section 4.4, Laboratory Trial Batches. The Contractor shall submit to the Engineer the concrete strength to which the materials were proportioned and copies of any records that the concrete supplier may have showing standard deviations in previous mixes.

B. No concrete shall be placed until tests of design mixes show a 28 day average compressive strength at least equal to the specified design compressive strength or until the concrete design mix proportions have been accepted by the Engineer.

C. Contractor shall submit the following data:

1. Fine Aggregate: Organic content, sieve analysis, fineness modulus and specified gravity.

2. Coarse Aggregate: Sieve analysis and average weighted loss in accordance with ASTM C-33.

3. Mix design, including cement brand, proportions of aggregate by weight, slump, water:cement ration, percentage of air.

4. Thirty, 28 day compressive test results on proposed mix that comply with Section 2.7A and 2.8A.

5. Admixture: Types, brand and quantity.

2.8 CONCRETE SPECIFIC REQUIREMENTS

A. Concrete for all the parts of the work shall be 8,000 psi at 28 days as noted on drawings and meet the values shown in the following Table:

Minimum compressive strength at 28 days	8,000 psi
Slump (inches)	2-1/2 - 4
Maximum size coarse aggregate for structural slabs and pumped concrete (inches)	#8 Aggregate
Minimum cement factor (lbs. per C.Y.)	800 lbs.
Maximum water cement ratio	0.35

1. Water content shall include surface water in aggregates.

B. All pumped concrete and concrete exposed to the weather including site work shall be air-contained as follows:

Maximum Size Aggregate	Air Content % by Volume
#8 Aggregate	4 - 6

Fine aggregate shall not exceed 70% of total aggregate weight.

Mix designs shall be proportioned such that the compression strength achieved for the laboratory trial batches will be no less than 125% of the specified design strength. This is to assure meeting design strength for all concrete batched during the project.

C. Use an independent testing facility acceptable to the Engineer for preparing and reporting proposed mix design.

D. Variations of proportions may be permitted to produce more workable materials on approval by the Engineer.

2.9 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94 and ASTM C 1116, and furnish batch ticket information.

1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 GENERAL

A. Coordinate the installation of joint materials, vapor retarder, embedded items, anchor bolts, and other related materials with placement of forms and reinforcement.

B. Thoroughly clean forms, metal decking and surfaces to receive concrete, remove chips, wood sawdust, dirt, welding ferrules and other debris just before placing concrete.

3.2 INSPECTION

A. Contractor and the installer shall examine the substrate and conditions under which work is to be performed and notify the Engineer, in writing, of unsatisfactory conditions. Do not proceed with concrete placement until unsatisfactory conditions have been corrected and accepted by the Engineer.

3.3 FORMWORK

A. Design, erect, shore, brace, and maintain formwork, according to ACI 347A and ACI 318,, Chapter 6, to support and maintain vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until concrete structure can support such loads.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.

C. Allowable Tolerances: Limit concrete surface irregularities, shall be within those specified in ACI 301, Chapter 4.3.

D. Construct forms tight enough to prevent loss of concrete mortar. Joints shall be placed on true vertical and horizontal axis.

E. Fabricate forms for easy removal without hammering or prying against concrete surfaces. Provide crush or wrecking plates where stripping may damage cast concrete surfaces. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical. Kerf wood inserts for forming keyways, reglets, recesses, and the like, for easy removal.

1. Do not use rust-stained steel form-facing material.

F. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces. Provide and secure units to support screed strips; use strike-off templates or compacting-type screeds.

G. Provide temporary openings for cleanouts and inspection ports where interior area of formwork is inaccessible. Remove wood chips, sawdust, dirt or other debris just before placing concrete. Close openings with panels tightly fitted to forms and securely braced to prevent loss of concrete mortar. Locate temporary openings in forms at inconspicuous locations.

H. Form a chamfer exterior corners and edges of all permanently exposed concrete accurately and securely.

I. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work. Determine sizes and locations from trades providing such items. Forms shall be recessed to receive anchor bolts and bearing plates.

J. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.

K. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

L. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

M. Side forms shall be used for pile caps, footings and grade beams.

N. Attach items to formwork, as required by other trades such as preformed reglets, anchors, inserts, bolts or sleeves. Coordinate requirements of all other trades for proper lines and spacing.

O. Formwork shall be pitched to meet finished slab elevations as shown on the Contract Documents to maintain the depth of any slab or beam. Camber forming to meet tolerances specified.

3.4 REMOVING AND REUSING FORMS

A. General: Formwork, for sides of grade beams, walls, columns, and similar parts of the Work, that does not support weight of concrete may be removed after cumulatively curing at not less than 50 deg F (10 deg C) for 24 hours after placing concrete provided concrete is hard enough to not be damaged by form-removal operations and provided curing and protection operations are maintained.

B. Clean and repair surfaces of forms to be reused in the work. Split, frayed, delaminated, or otherwise damaged form-facing material will not be acceptable for exposed surfaces. Apply new form-release agent.

C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints. Align and secure joints to avoid offsets. Do not use patched forms for exposed concrete surfaces unless approved by Engineer.

3.5 STEEL REINFORCEMENT

A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.

1. Do not cut or puncture vapor retarder. Repair damage and reseal vapor retarder before placing concrete.

B. Clean reinforcement of loose rust and mill scale, earth, ice, and other foreign materials that might reduce its bond strength with concrete.

C. Accurately position, support, and secure reinforcement against displacement before and during concrete placement. Locate and support reinforcement with bar supports to maintain minimum concrete cover. Do not tack weld crossing reinforcing bars.

1. Shop- or field-weld reinforcement according to AWS D1.4, where indicated.

D. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

E. Install welded wire fabric in flat sheets in longest practicable lengths on bar supports spaced to minimize sagging. Lap edges and ends of adjoining sheets at least one mesh spacing. Offset laps of adjoining sheet widths to prevent continuous laps in either direction.

F. Reinforcement shall stop at expansion joints and continue through construction joints.

G. Place reinforcing on continuous high chairs for top reinforcement. Use of individual high chairs is prohibited.

3.6 JOINTS

A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.

B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.

1. Place joints perpendicular to main reinforcement. Continue reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of strip placements of floors and slabs.

2. Form keyway-section forms, or bulkhead forms in all construction joints in walls and between walls and footings. Embed keyways at least 1-1/2 inches deep (38 mm) by 1/3 the wall thickness.

C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness, as follows:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch (3 mm). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.

2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch (3-mm) wide by one-fourth the slab depth joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.

3. If joint pattern is not shown on the drawings, slab and grade contraction joints shall be broken down into sections that do not exceed 15 feet in either direction of area and conform to bay spacing wherever possible (at column centerlines, half bays, third points).

D. Dowel Joints: Install dowel sleeves and dowels or dowel bar and support assemblies at joints where indicated.

1. Use dowel sleeves or lubricate or asphalt-coat one-half of dowel length to prevent concrete bonding to one side of joint.

3.7 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed. Do not place concrete until inspections have been made or waived and all deficiencies observed have been corrected.

B. Structural slabs exposed to the elements shall not contain electrical conduits or piping. Structural beams and slabs shall not be adversely affected by conduits contained in slabs.

C. All conduits and piping are to be dug into subgrade sufficiently so as to provide uniform slab thickness.

D. All dowels, anchor bolts, inserts and other embedded items shall be set with the aid of templates and other embedded items shall be prior to the placement of concrete.

E. Do not add water to concrete during delivery, at Project site, or during placement, unless approved by Engineer. Maintain slumps at time of deposit. It may be added at the job site. If high-range water reducing admixture (super-plasticized) is used after verifying delivery slump is 2 to 3 inches. Maximum slump after adding HRWR shall be 8 inches.

F. Before placing concrete, water may be added at Project site, subject to limitations of ACI 301.

1. Do not add water to concrete after adding high-range water-reducing admixtures to mix.

G. Deposit concrete continuously or in layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as specified. Deposit concrete to avoid segregation.

H. Deposit concrete in forms in horizontal layers no deeper than 24 inches (600 mm) and in a manner to avoid inclined construction joints. Place each layer while preceding layer is still plastic, to avoid cold joints.

1. Consolidate placed concrete with mechanical vibrating equipment. Use equipment and procedures for consolidating concrete recommended by ACI 309R.

2. Do not use vibrators to transport concrete inside forms. Insert and withdraw vibrators vertically at uniformly spaced locations no farther than the visible effectiveness of the vibrator. Place vibrators to rapidly penetrate placed layer and at least 6 inches (150 mm) into preceding layer. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity. At each insertion, limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing mix constituents to segregate.

I. Deposit and consolidate concrete for floors and slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.

1. Consolidate concrete during placement operations so concrete is thoroughly worked around reinforcement and other embedded items and into corners.

2. Maintain reinforcement in position on chairs during concrete placement.

3. Screed slab surfaces with a straightedge and strike off to correct elevations.

4. Slope surfaces uniformly to drains where required.

5. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, free of humps or hollows, before excess moisture or bleedwater appears on the surface. Do not further disturb slab surfaces before starting finishing operations.

J. Cold-Weather Placement: Comply with ACI 306R and as follows. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

1. Cold Weather: Precautions shall be taken when the temperature is at or below 40 °F or at 45°F and falling, in accordance with ACI 306, "Recommended Practice for Cold Weather Concreting".

    a. Set up a proper enclosure and heat to 50 degrees for a minimum of four (4) hours before starting any pour.

    b. Use a water-reducing admixture with an accelerated set, but do not use or relay upon any materials as an "anti-freeze".

    c. Use vented heaters with blowers so placed that they do not produce localized hot spots which may dry out the concrete.

    d. Maintain the temperature of the concrete at not less than 50 degrees for 72 hours and at above freezing for an additional seven (7) days. The temperature shall then be allowed to drop gradually to the exterior air temperature before the enclosure is removed at the rate of not more than 5 degrees per hour nor 50 in any 24 hour period before discontinuing.

    e. All frozen concrete shall be removed from the job and replaced.

K. Hot-Weather Placement: Place concrete according to recommendations in ACI 305R and as follows, when hot-weather conditions exist:

1. Hot Weather: Precautions shall be taken when the temperature is at or above 75°F or at 70°F and rising in accordance with ACI 305, "Recommended Practice for Hot Weather Concreting". No concrete shall be placed when the air temperature is above 90°F, unless the air is still and relative humidity is above 80%.

    a. Set up proper windbreakers for concrete surfaces wherever the relative humidity is less than 70% for slight air motion or 80% for light breezes.

    b. Provide shade for placements otherwise exposed to the sun.

    c. Concrete is to be at a temperature of 80°F or less when placed. If necessary, the batching plant shall cool the aggregate by spraying or by using chilled water or ice. All such water shall be accounted for as part of the mixing water.

    d. Use an admixture with a retarded set.

    e. All forms shall be thoroughly wetted at least daily and more often when the relative humidity is low.

    f. Maintain the required materials at hand for curing slabs so they may be placed immediately upon steel troweling. When the concrete temperature of any slab goes above 100°F, place a layer of sand on it and keep it continuously wet until the temperature is below 90°F.

3.8 FINISHING FLOORS AND SLABS

A. All interior concrete slabs shall be finished by screed floating, floated finish and steel troweled to a smooth, even surface in accordance with ACI 301, Section 5.3.4, unless otherwise noted.

B. General: Comply with recommendations in ACI 302.1R for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces. Provide proper depression in concrete to accept specified finish floor materials.

C. Float Finish: Consolidate surface with power-driven floats or by hand floating if area is small or inaccessible to power driven floats. Restraighten, cut down high spots, and fill low spots. Repeat float passes and restraightening until surface is left with a uniform, smooth, granular texture.

1. Apply float finish to surfaces indicated, to surfaces to receive trowel finish, and to floor and slab surfaces to be covered with fluid-applied or sheet waterproofing, built-up or membrane roofing, or sand-bed terrazzo.

D. Trowel Finish: After applying float finish, apply first trowel finish and consolidate concrete by hand or power-driven trowel. Continue troweling passes and restraighten until surface is free of trowel marks and uniform in texture and appearance. Grind smooth any surface defects that would telegraph through applied coatings or floor coverings.

1. Finish slab on grade surfaces to the following tolerances: flatness F_F 35 and levelness F_L 25; with a minimum local values of F_F 24 and F_L 17 and shall meet Class "2" flatness in accordance with ACI 302.1R Section 8.15. Finish and measure surface so gap at any point between concrete surface and an unleveled freestanding 10-foot long straightedge, resting on two high spots and placed anywhere on the surface, does not exceed 1/4 inch in 10 feet.

3.9 CONCRETE PROTECTION AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and with recommendations in ACI 305R for hot-weather protection during curing. Apply curing compound to concrete slab as soon as final finishing operations are completed (within 2 hours and after water sheen has disappeared).

B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

C. Unformed Surfaces: Begin curing immediately after finishing concrete. Cure unformed surfaces, including floors and slabs, concrete floor toppings, and other surfaces, by one or a combination of the following methods:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:

   a. Water.
   b. Continuous water-fog spray.
   c. Polyethylene film.
   d. Curing compounds.
   e. Waterproof curing paper.

2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 4 inches, and sealed by waterproof tape or adhesive. Cure for not less than seven days. Immediately repair any holes or tears during curing period

using cover material and waterproof tape.

a. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive floor coverings.

b. Moisture cure or use moisture-retaining covers to cure concrete surfaces to receive penetrating liquid floor treatments.

c. Cure concrete surfaces to receive floor coverings with either a moisture-retaining cover or a curing compound that the manufacturer recommends for use with floor coverings.

d. Slabs to be treated with a concrete hardener, or other floor finishes, the use of curing compounds that leave a film is not acceptable.

3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions within 2 hours of final finishing operation completion. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.

3.10 REMOVING FORMS

A. General: Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 deg. F for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form-removal operations, and providing curing and protection operations are maintained.

B. Formwork supporting weight of concrete, such as beam soffits, joists, slabs, and other structural elements, may not be removed in less than 14 days or until concrete has attained at least 80 percent of design minimum compressive strength at 28 days. Determine potential compressive strength of in-place concrete by testing field-cured specimens representative of concrete location or members.

C. Form-facing material may be removed 4 days after placement only if shores and other vertical supports have been arranged to permit removal of form-facing material without loosening or disturbing shores and supports.

3.11 CONCRETE SURFACE REPAIRS

A. Defective Concrete: Repair and patch defective areas when approved by Engineer. Remove and replace concrete that cannot be repaired and patched to Engineer's approval.

B. Repairing Unformed Surfaces: Test unformed surfaces, such as floors and slabs, for finish and verify surface tolerances specified for each surface. Correct low and high areas. Test surfaces sloped to drain for trueness of slope and smoothness; use a sloped template.

1. Repair finished surfaces containing defects. Surface defects include spalls, popouts, honeycombs, rock pockets, crazing and cracks in excess of 0.01 inch (0.25 mm) wide or that penetrate to reinforcement or completely through unreinforced sections regardless of width, and other objectionable conditions

2. After concrete has cured at least 7 days, correct high areas by grinding.

3. Correct localized low areas during or immediately after completing surface finishing operations by cutting out low areas and replacing with patching mortar. Finish repaired areas to blend into adjacent concrete.

4. Correct other low areas scheduled to receive floor coverings with a repair underlayment. Prepare, mix, and apply repair underlayment and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface. Feather edges to match adjacent floor elevations.

5. Correct other low areas scheduled to remain exposed with a repair topping. Cut out low areas to ensure a minimum repair topping depth of 1/4 inch (6 mm) to match adjacent floor elevations. Prepare, mix, and apply repair topping and primer according to manufacturer's written instructions to produce a smooth, uniform, plane, and level surface.

6. Repair defective areas, except random cracks and single holes 1 inch (25 mm) or less in diameter, by cutting out and replacing with fresh concrete. Remove defective areas with clean, square cuts and expose steel reinforcement with at least 3/4 inch (19 mm) clearance all around. Dampen concrete surfaces in contact with patching concrete and apply bonding agent. Mix patching concrete of same materials and mix as original concrete except without coarse aggregate. Place, compact, and finish to blend with adjacent finished concrete. Cure in same manner as adjacent concrete.

7. Repair random cracks and single holes 1 inch (25 mm) or less in diameter with patching mortar. Groove top of cracks and cut out holes to sound concrete and clean off dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding agent. Place patching mortar before bonding agent has dried. Compact patching mortar and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.

C. Perform structural repairs of concrete, subject to Engineer's approval, using epoxy adhesive and patching mortar.

D. Repair materials and installation not specified above may be used, subject to Engineer's approval.

END OF SECTION 03300

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The Drawings and General Provisions of the Contract, including the General Conditions and Supplementary General Conditions, apply to the work specified in this Section.

1.2 SCOPE OF WORK

A. The work under this Section consists of furnishing all labor, materials, equipment, services and transportation required to complete structural steel and connection work shown on drawings, as specified herein, or both. Structural steel work is that work defined in AISC "Code of Standard Practice" plus steel work listed below and shown on the structural drawings.

1. Furnishing, install and erection of hopper end plates and guide rails at the Cast-In-Place concrete

2. Furnishing of structural steel items shown in structural drawings required to be built into or form part of work specified under other Sections.

3. Unless specifically excluded, furnishing and installation of any other items of structural steel work indicated on drawings, specified or obviously needed to make work of this Section complete.

1.3 RELATED WORK

A. Examine Contract Documents for requirements that affect work of this Section. Other Specification Sections that directly relate to work of this Section include, but are not limited to:

1. Section 03300 Cast-In-Place Concrete

1.4 REFERENCES/QUALITY ASSURANCE

A. Except as otherwise specified herein, perform work in accordance with specifications noted below, including latest editions of applicable specifications, codes, and standards cited therein, and latest applicable addenda and supplements.

1. 2003 International Building Code with Connecticut Supplements.

2. "Specification for Structural Steel Buildings – Allowable Stress Design and Plastic Design", American Institute of Steel Construction (AISC), 1989.

3. "Code of Standard Practice for Steel Buildings and Bridges", American Institute of Steel Construction, (AISC) 1992 except as modified herein by deletion of the following sentences: Paragraph 4.2 "The fabricator includes a maximum allowance of fourteen (14) calendar days in his schedule for the return of shop drawings." Paragraph 4.2.1 "Approval by the Owner of shop drawings prepared by the fabricator indicates that the fabricator has correctly interpreted the Contract requirements. This approval constitutes the Owner's acceptance of all responsibility for the design adequacy of any connections designed by the fabricator as a part of his preparation of these shop drawings. Approval does not relieve the fabricator of the responsibility for accuracy of detail dimensions on shop drawings, nor the general fit-up of parts to be assembled in the field."

4. "Structural Welding Code – Steel (AWS D1.1-96)", American Welding Society.

5. American Society for Testing Materials (ASTM) Standards referenced in this Section.

B. Any material or operation specified by reference to published specifications of manufacturer or published standard shall comply with said specification or standard. In case of conflict between referenced specifications, most stringent requirement shall govern. In case of conflict between referenced specifications and Project Specifications, Project Specifications shall govern.

C. Qualified Welders

1. All shop and field welding shall be done by certified welders.

D. Erector Qualifications: Engage an experienced erector who has completed structural steel work similar in material, design, and extent to that indicated for this project and with a 5 year record of successful in-service performance.

E. Fabricator Qualifications: Engage a firm experienced in fabricating structural steel similar to that indicated for this project and with a record of successful in-service performance, as well as sufficient production capacity to fabricate structural steel without delaying the work.

1. Fabricator must participate in the AISC Quality Certification Program and be designated an AISC-Certified Plant as follows:

a. Category: Category Sbd, conventional steel structures.

1.5 SUBSTITUTIONS

A. Substitutions for member sizes, type(s) of steel, connection details or any other modifications proposed by Contractor will be considered by Engineer only under following conditions:

1. That request has been made and accepted prior to submission of Shop Drawings.

2. That there is a substantial cost advantage or time advantage to Owner, or that proposed revision is necessary to obtain required materials or methods at proper times to accomplish work in time scheduled.

3. That sufficient sketches, engineering calculations, and other data have been submitted to facilitate checking by Engineer, including cost reductions or savings in time to complete work.

1.6 COORDINATION AND MEASUREMENTS

A. Prior to submitting shop drawings, the Contractor shall field verify all dimensions and elevations to assure proper fabrication and erection.

B. The work in this Section shall be closely coordinated with work of other trades.

1.7 SUBMITTALS

A. Shop Drawings:

1. Erection drawings shall clearly show the following: Sizes, locations and elevations of all members; grades of steel; standard connections according to AISC Manual fully identified for all beam support points; details of non-standard and eccentric connections indicated on Structural Drawings; notes on connectors and fasteners; shop painting instructions; erection notes and field painting instructions.

2. Detailed shop drawings showing all members shall be submitted for review. Such drawings shall show size, length, connections and connection locations.

3. Acceptance will be for size and arrangement for principal and auxiliary members. Any error in dimensions will be the responsibility of the Contractor.

4. Certificates

   a. Mill certificates covering any portion of the steel shall be furnished if requested by the Engineer.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Structural steel shapes shall conform to requirements of ASTM A992 or ASTM 572 Grade 50. All steel shall be newly rolled steel.

B. Structural plates and bar shapes shall be ASTM A36. (Hot Dipped Galvanized)

C. All hollow structural square or rectangular steel sections (HSS) shall conform to requirements of ASTM A-500, Grade B (fy = 46 ksi), or Grade C manufactured by seamless or continuous weld process with rounded corners and outside sizes shown.

D. All structural steel pipe shall conform to HSS requirements of ASTM A-500, Grade B (fy = 42 ksi) for thickness equal to or less than 0.625 in. Round shapes thicker than 0.625 in. shall conform to ASTM A-53, Grade B (fy = 35 ksi).

E. Welding electrode types shall conform to AWS requirements.

F. Steel rail shall conform to requirements of American Railway Engineering and Maintenance Of-Way Association (AREMA) Section 4.2.1.

2.2 PRIMER

A. Galvanizied Repair Paint: (ASTM A-780)

2.3 Galvanizing

A. Hot-Dip Galvanized Finish: Apply Zinc coating by the Hot-Dip process to structural steel according to ASTM A123.

PART 3 – EXECUTION

3.1 FABRICATION

A. Fabricate and assemble structural steel in shop to greatest extent possible. Fabricate structural steel according to AISC specifications referenced in this Section and in Shop Drawings.

1. Mark and match-mark materials for field assembly.

2. Fabricate for delivery a sequence that will expedite erection and minimize field handling of structural steel.

3. Comply with fabrication tolerance limits of AISC's "Code of Standard Practice for Steel Buildings and Bridges" for structural steel.

B. Thermal Cutting: Perform thermal cutting by machine to greatest extent possible.

1. Plane thermally cut edges to be welded.

3.2 CONNECTIONS

A. Fillet welds shall be ¼ inch minimum unless otherwise noted.

3.3 EXAMINATION

A. Before erection proceeds, and with the steel erector present, verify elevations of existing steel bearing surfaces and locations of anchorages for compliance with requirements.

B. Do not proceed with erection until unsatisfactory conditions have been corrected.

3.4 PREPARATION

A. Provide temporary shores, guys, braces, and other supports during erection to keep structural steel secure, plumb, and in alignment against temporary construction loads and loads equal in intensity to design loads. Remove temporary supports when permanent structural steel, connections, and bracing are in place, unless otherwise indicated.

3.5 ERECTION

A. Set structural steel accurately in locations and to elevations indicated and according to AISC specifications referenced in this Section.

B. Maintain erection tolerances of structural steel within AISC's "Code of Standard Practice for Steel Buildings and Bridges".

1. Maintain erection tolerances or architecturally exposed structural steel within AISC's "Code of Standard Practice for Steel Buildings and Bridges".

C. Align and adjust various members forming part of complete frame or structure before permanently fastening. Before assembly, clean bearing surfaces and other surfaces that will

be in permanent contact. Perform necessary adjustments to compensate for discrepancies in elevations and alignment.

1. Level and plumb individual members of structures.

2. Establish required leveling and plumbing measurements on mean operating temperature of structure. Make allowances for difference between temperature at time of erection and mean temperature at which structure will be when completed and in service.

D. Weld Connections: Comply with AWS D1.1 for procedures, appearance and quality of welds, and methods used in correcting welding work.

1. Comply with AISC specifications referenced in this Section for bearing, adequacy of temporary connections, alignment, and removal of paint on surfaces adjacent to field welds.

2. Assemble and weld built-up sections by methods that will maintain true alignment of axes without warp.

E. The Contractor shall accept full responsibility for design strength, safety and adequacy of all temporary bracing and sequencing of structural steel erection to brace the structure. Provide all temporary braces, guys, connections and work platforms required to safely resist all loads, including storms, to which the structure may be subjected.

F. The Contractor shall guy, plumb, and align framing in accordance with limits defined in the AISC "Code of Standard Practice"

G. Any corrections required in the field to make members fit shall be brought to the attention of the Engineer for approval.

3.6 FIELD CONNECTIONS

A. Plate connections shall be in accordance with the AISC "Manual of Steel Construction".

1. Welds that do not pass visual inspection are to be tested again using either Magnetic Particles or dye penetration test methods.

B. Fabricator and Erector to provide Testing and Inspection Agency and the Special Inspector safe access to the site throughout the duration of the steel erection. Fabricator to notify the Testing Agency and the Special Inspector a minimum of 48 hours prior to the erection.

3.7 QUALITY CONTROL

A. Contractor will engage an independent testing to perform shop and field inspections and tests and to prepare test reports.

1. Testing agency will conduct and interpret tests and state in each report whether tested work complies with or deviates from requirements.

B. Correct deficiencies in or remove and replace structural steel that inspections and test reports indicate do not comply with specified requirements.

C. Additional testing, at Contractor's expense, will be performed to determine compliance with corrected work with specified requirements.

D. Connections will be inspected and tested according to AWS D1.1 and the inspection procedures listed below:

1. Inspect and test shop fillet welds as follows:

   a. Visually inspect 50% of all fillet welds prior to the application of a shop primer. The percentage of welds inspected may be modified by the Structural Engineer of record, depending on initial results.

   b. Witness the actual welding procedures and perform magnetic particle tests on a minimum of 5 percent of shop fillet welds.

   c. Welds that do not pass visual inspection are to be tested again using either Magnetic Particle or dye penetration test methods.

2. Perform ultrasonic testing (ASTM E164) on 100 percent of all full and partial penetration welds. The percentage of welds inspected may be modified by the Structural Engineer of record, depending on initial results.

3. Inspect and test field fillet welds as follows:

   a. Visually inspect 100% of all fillet welds.

   b. Witness the actual welding procedures and perform magnetic particle test on a minimum of 15 percent of all fillet fields.

E. Splice members only where indicated.

F. Do not use thermal cutting during erection.

G. Finish sections thermally cut during erection equal to a sheared appearance.

H. Do not enlarge unfair holes in members by burning or by using drift pins. Ream holes that must be enlarged to admit bolts.

3.8 REPAIR AND PROTECTION

A. Repair damaged galvanized items with galvanized repair paint according to ASTM A780 and manufacturer's written instructions.

END OF SECTION 05120

EXHIBIT D

To

MSW FLOOR REPAIRS AT THE MID-CONNECTICUT WASTE PROCESSING FACILITY AGREEMENT

PROJECT SCHEDULE

PROJECT SCHEDULE

Completion Date	A total of seventy-five (75) days are allowed to complete the Work and have such Work ready for acceptance by CRRA. Contractor shall commence performance of the Work upon CRRA's issuance to Contractor of the Notice To Proceed pursuant to Section 4.2 of the Agreement.

EXHIBIT E

To

MSW FLOOR REPAIRS AT THE MID-CONNECTICUT WASTE PROCESSING FACILITY AGREEMENT

PERFORMANCE BOND FORM

AND

LETTER OF CREDIT FORM

PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable. The below addresses are to be used for giving required notice.

CONTRACTOR (Name and Address):	**SURETY** (Name and Principal Place of Business):

OWNER (Name and Address):

Connecticut Resources Recovery Authority
100 Constitution Plaza, 6th Floor
Hartford, CT 06103-1722

AGREEMENT

DATE:	
AMOUNT:	
PROJECT DESCRIPTION (Including Name and Location):	MSW Floor Repairs At The Mid-Connecticut Waste Processing Facility Mid-Connecticut Waste Processing Facility 300 Maxim Road, Gate 70 Hartford, Connecticut 06114

BOND

BOND NUMBER:	
DATE: (Not earlier than Agreement Date)	
AMOUNT:	DOLLARS ($)

IN WITNESS WHEREOF, Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on Pages 2 and 3 hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL		**SURETY**	
(SEAL)		(SEAL)	
Contractor's Name and Corporate Seal		Surety s Name and Corporate Seal	
SIGNATURE:		**SIGNATURE:**	
NAME AND TITLE:		**NAME AND TITLE:**	

TERMS AND CONDITIONS TO PERFORMANCE BOND

1. The Contractor and the Surety jointly and severally bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the foregoing Agreement, the terms of which are incorporated herein by reference. Any singular reference to the Contractor, the Surety, the Owner or any other party herein shall be considered plural where applicable.

2. If the Contractor performs the Agreement, the Surety and the Contractor shall have no obligation under this Bond, except to participate in conferences as provided in Subparagraph 3.1.

3. If there is no Owner Default (as hereinafter defined), the Surety's obligation under this Bond shall arise after:

   3.1 The Owner has notified the Contractor and the Surety at its address described in Paragraph 10 below, that the Owner is considering declaring a Contractor Default (as hereinafter defined) and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than fifteen (15) days after the receipt of such notice to discuss methods of performing the Agreement. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Agreement, but such an agreement shall not waive the Owner's right, if any, to subsequently declare a Contractor Default; and

   3.2 The Owner has declared a Contractor Default (as hereinafter defined) and formally terminated the Contractor's right to complete the Agreement. Such Contractor Default shall not be declared earlier than twenty (20) days after the Contractor and the Surety have received notice as provided in Subparagraph 3.1.

   3.3 The Owner has agreed to pay the Balance of the Agreement Price to the Surety in accordance with the terms of the Agreement or to a contractor selected to perform the Agreement in accordance with the terms of the agreement with the Owner.

4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

   4.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Agreement; or

   4.2 Undertake to perform and complete the Agreement itself, through its agents or through independent contractors; or

   4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Agreement, arrange for a contract to be prepared for execution by the Owner and the contractor selected with the Owner's concurrence, to be secured with a performance bond executed by a qualified surety equivalent to the bond issued on the Agreement, and pay to the Owner the amount of damages described in Paragraph 6; or

   4.4 Waive its right to perform and complete, arrange for completion or obtain a new contractor and with reasonable promptness under the circumstances:

      4.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefor to the Owner; or

      4.4.2 Deny liability in whole or in part and notify the Owner citing reasons therefor.

5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen (15) days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Subparagraph 4.4 and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

6. After the Owner has terminated the Contractor's right to complete the Agreement, and if the Surety elects to act under Subparagraph 4.1, 4.2 or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Agreement, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Agreement. To the limit of the amount of this Bond, the Surety is obligated without duplication for:

   6.1 The responsibilities of the Contractor for correction of defective work and completion of the Agreement;

   6.2 Additional legal and delay costs resulting from the Contractor's Default and resulting from the actions or failure to act of the Surety under Paragraph 4; and

   6.3 Liquidated damages, or if no liquidated damages are specified in the Agreement, actual damages caused by delayed performance or non-performance of the Contractor.

7. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Agreement. No right of action shall accrue on this Bond to any person or entity other than the Owner or its successors and assigns.

8. The Surety hereby waives notice of any change, including changes of time, to the Agreement or to related subcontracts, purchase orders and other obligations.

9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two (2) years after Contractor Default or within two (2) years after the Contractor ceased working or within two (2) years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions

of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page of this Bond.

11. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the Agreement was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted here from and provisions confirming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

    12.1 Balance of the Agreement Price: The total amount payable by the Owner to the Contractor under the Agreement after all proper adjustments have been made, including allowance to the Contactor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Agreement.

    12.2 Agreement: The agreement between the Owner and the Contractor identified on the signature page, including all Agreement Documents and changes thereto.

    12.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with any of the terms of the Agreement.

    12.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Agreement or to perform and complete or comply with the other terms hereof.

LETTER OF CREDIT

To Be Issued By a Connecticut Bank Or By a National Banking Association

Irrevocable Standby Letter Of Credit No.	**[LETTER OF CREDIT #]**		
Issuance Date:	**[DATE]**	Expiration Date:	**[DATE]**
Beneficiary:	Connecticut Resources Recovery Authority 100 Constitution Plaza, 6th Floor Hartford, CT 06103		

Gentlemen:

We hereby establish our Irrevocable Standby Letter Of Credit No. **[Letter Of Credit #]** in favor of the "Beneficiary," Connecticut Resources Recovery Authority ("CRRA"), at the request and for the account of **[Name of Contractor]**, for the sum or sums up to the aggregate amount of **[amount of Letter Of Credit]** available for payment against your draft(s) at sight on us.

Drafts must be drawn and presented to us at this office not later than our close of business on **[Date]** or any duly extended expiration date, and each draft must bear the following clause: "Drawn Under Letter Of Credit No. **[Letter Of Credit #]**."

Drafts must be accompanied by a certified statement from the Beneficiary that **[name of Contractor]** has failed to satisfy or perform one or more of its obligations or breached one or more of its covenants or representations under a certain MSW Floor Repairs At The Mid-Connecticut Waste Processing Facility Agreement between **[name of Contractor]** and CRRA, dated as of **[Date]**.

Partial drawings hereunder are permitted.

We hereby agree with you that drafts drawn under and in compliance with the above terms of this Letter Of Credit shall be duly and promptly honored on due presentation and delivery to us on or before the above-referenced expiration date or any duly extended expiration date.

The term "Beneficiary" includes any successor by operation of law of the named Beneficiary including, without limitation, any liquidator, rehabilitator, receiver or conservator.

Except as expressly stated herein, this undertaking is not subject to any agreement, condition or qualification. The obligation of **[name of the issuing Connecticut Bank or National Banking Association]** under this Letter of Credit is the individual obligation of **[name of the issuing Connecticut Bank or National Banking Association]** and is in no way contingent upon reimbursement with respect thereto.

It is a condition of this Letter Of Credit that it is deemed to be automatically extended without amendment for one (1) year from the expiration date stated above, or any future expiration date, unless not later than ninety (90) days prior to the expiration date stated above or the then current expiration date we notify you by registered mail that we elect not to renew this Letter Of Credit for any such additional period.

We hereby agree that all drafts drawn under and in compliance with the terms of this Letter Of Credit shall be duly honored by us at your first demand, notwithstanding any contestation or dispute between you and **[name of Contractor]**, if presented to us in accordance with the provisions hereof.

This Letter of Credit is subject to and governed by the laws of the State of Connecticut, the decisions of the courts of that state, and the Uniform Customs and Practice for Documentary Credits (1993 Revision) International Chamber of Commerce Publication No. 500 and in the event of any conflict, the laws of the State of Connecticut and the decisions of the courts of that state will control. If this Letter Of Credit expires during an interruption of business of this bank as described in Article 17 of said Publication 500, **[name of issuing Connecticut Bank or National Banking Association]** hereby specifically agrees to effect payment if this Letter of Credit is drawn against within thirty (30) days after the resumption of business from such interruption.

Very truly yours,

_____

Authorized Signature for
[name of issuing Connecticut Bank or National Banking Association]

EXHIBIT F

To

MSW FLOOR REPAIRS AT THE MID-CONNECTICUT WASTE PROCESSING FACILITY AGREEMENT

PAYMENT BOND FORM

PAYMENT BOND

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable. The below addresses are to be used for giving required notice.

CONTRACTOR (Name and Address):	**SURETY** (Name and Principal Place of Business):

OWNER (Name and Address):

Connecticut Resources Recovery Authority
100 Constitution Plaza, 6th Floor
Hartford, CT 06103-1722

AGREEMENT

DATE:	
AMOUNT:	
PROJECT DESCRIPTION (Including Name and Location):	MSW Floor Repairs At The Mid-Connecticut Waste Processing Facility Mid-Connecticut Waste Processing Facility 300 Maxim Road, Gate 70 Hartford, Connecticut 06114

BOND

BOND NUMBER:	
DATE: (Not earlier than Agreement Date)	
AMOUNT:	DOLLARS ($)

IN WITNESS WHEREOF, Surety and Contractor, intending to be legally bound hereby, subject to the terms printed on Pages 2 and 3 hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL		**SURETY**	
(SEAL) Contractor's Name and Corporate Seal		(SEAL) Surety s Name and Corporate Seal	
SIGNATURE:		**SIGNATURE:**	
NAME AND TITLE:		**NAME AND TITLE:**	

TERMS AND CONDITIONS TO PAYMENT BOND

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Agreement, which is incorporated herein by reference.

2. With respect to the Owner, this obligation shall be null and void if the Contractor:

   2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and

   2.2 Defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity whose claim, demand, lien or suit is for the payment for labor, materials or equipment furnished for use in the performance of the Agreement, provided the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 12) of any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety, and provided there is no Owner Default.

3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.

4. The Surety shall have no obligation to Claimants under this Bond until:

   4.1 Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.

   4.2 Claimants who do not have a direct contract with the Contractor:

      4.2.1 Have furnished written notice to the Contractor and sent a copy, or notice thereof to the Owner, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed; and

      4.2.2 Have either received a rejection in whole or in part from the Contractor, or not received within 30 days of furnishing the above notice any communication from the Contractor by which the Contractor has indicated the claim will be paid directly or indirectly; and

      4.2.3 Not having been paid within the above 30 days, have sent a written notice to the Surety (at the address described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.

5. If a notice required by Paragraph 4 is given by the Owner to the Contractor or to the Surety, that is sufficient compliance.

6. When the Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:

   6.1 Send an answer to the Claimant, with a copy to the Owner, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.

   6.2 Pay or arrange for payment of any undisputed amounts.

7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

8. Amounts owed by the Owner to the Contractor under the Agreement shall be used for the performance of the Agreement and to satisfy claims, if any, under any Performance Bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Agreement are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

9. The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Agreement. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

10. The Surety hereby waives notice of any change, including changes of time, to the Agreement or to related subcontracts, purchase orders and other obligations.

11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the work or part of the work is located or after the expiration of one year from the date (1) on which the Claimant gave the notice required by Subparagraph 4.1 or Clause 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Agreement, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the signature page. Actual receipt of notice by Surety, the Owner or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.

15. Definitions

    15.1 Claimant: An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Agreement. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Agreement, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

    15.2 Agreement: The agreement between the Owner and the Contractor identified on the signature page, including all Agreement Documents and changes thereto.

    15.3 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Agreement or to perform and complete or comply with the other terms thereof.

EXHIBIT G

To

MSW FLOOR REPAIRS AT THE MID-CONNECTICUT WASTE PROCESSING FACILITY AGREEMENT

PREVAILING WAGE BID PACKAGE

Informational Bulletin

THE 10-HOUR OSHA CONSTRUCTION SAFETY AND HEALTH COURSE

(applicable to public building contracts entered into *on or after July 1, 2007*, where the total cost of all work to be performed is at least $100,000)

(1) This requirement was created by Public Act No. 06-175, which is codified in Section 31-53b of the Connecticut General Statutes (pertaining to the prevailing wage statutes);

(2) The course is required for public building construction contracts (projects funded in whole or in part by the state or any political subdivision of the state) entered into on or after July 1, 2007;

(3) It is required of private employees (not state or municipal employees) and apprentices who perform manual labor for a general contractor or subcontractor on a public building project where the total cost of all work to be performed is at least $100,000;

(4) The ten-hour construction course pertains to the ten-hour Outreach Course conducted in accordance with federal OSHA Training Institute standards, and, for telecommunications workers, a ten-hour training course conducted in accordance with federal OSHA standard, 29 CFR 1910.268;

(5) The internet website for the federal OSHA Training Institute is http://www.osha.gov/fso/ote/training/edcenters/fact_sheet.html;

(6) The statutory language leaves it to the contractor and its employees to determine who pays for the cost of the ten-hour Outreach Course;

(7) Within 30 days of receiving a contract award, a general contractor must furnish proof to the Labor Commissioner that all employees and apprentices performing manual labor on the project will have completed such a course;

(8) Proof of completion may be demonstrated through either: (a) the presentation of a *bona fide* student course completion card issued by the federal OSHA Training Institute; *or* (2) the presentation of documentation provided to an employee by a trainer certified by the Institute pending the actual issuance of the completion card;

(9) Any card with an issuance date more than 5 years prior to the commencement date of the construction project shall not constitute proof of compliance;

(10) Each employer shall affix a copy of the construction safety course completion card to the certified payroll submitted to the contracting agency in accordance with Conn. Gen. Stat. § 31-53(f) on which such employee's name first appears;

(11) Any employee found to be in non-compliance shall be subject to removal from the worksite if such employee does not provide satisfactory proof of course completion to the Labor Commissioner by the fifteenth day after the date the employee is determined to be in noncompliance;

(12) Any such employee who is determined to be in noncompliance may continue to work on a public building construction project for a maximum of fourteen consecutive calendar days while bringing his or her status into compliance;

(13) The Labor Commissioner may make complaint to the prosecuting authorities regarding any employer or agent of the employer, or officer or agent of the corporation who files a false certified payroll with respect to the status of an employee who is performing manual labor on a public building construction project;

(14) The statute provides the minimum standards required for the completion of a safety course by manual laborers on public construction contracts; any contractor can exceed these minimum requirements; and

(15) Regulations clarifying the statute are currently in the regulatory process, and shall be posted on the CTDOL website as soon as they are adopted in final form.

(16) Any questions regarding this statute may be directed to the Wage and Workplace Standards Division of the Connecticut Labor Department via the internet website of http://www.ctdol.state.ct.us/wgwkstnd/wgemenu.htm; or by telephone at (860)263-6790.

THE ABOVE INFORMATION IS PROVIDED EXCLUSIVELY AS AN EDUCATIONAL RESOURCE, AND IS NOT INTENDED AS A SUBSTITUTE FOR LEGAL INTERPRETATIONS WHICH MAY ULTMATELY ARISE CONCERNIG THE CONSTRUCTION OF THE STATUTE OR THE REGULATIONS.

November 29, 2006

Notice

To All Mason Contractors and Interested Parties Regarding Construction Pursuant to Section 31-53 of the Connecticut General Statutes (Prevailing Wage)

The Connecticut Labor Department Wage and Workplace Standards Division is empowered to enforce the prevailing wage rates on projects covered by the above referenced statute.

Over the past few years the Division has withheld enforcement of the rate in effect for workers who operate a forklift on a prevailing wage rate project due to a potential jurisdictional dispute.

The rate listed in the schedules and in our Occupational Bulletin (see enclosed) has been as follows:

Forklift Operator:

- **Laborers (Group 4) Mason Tenders** - operates forklift solely to assist a mason to a maximum height of nine feet only.

- **Power Equipment Operator (Group 9)** - operates forklift to assist any trade and to assist a mason to a height over nine feet.

The U.S. Labor Department conducted a survey of rates in Connecticut but it has not been published and the rate in effect remains as outlined in the above Occupational Bulletin.

Since this is a classification matter and not one of jurisdiction, effective January 1, 2007 the Connecticut Labor Department will enforce the rate on each schedule in accordance with our statutory authority.

Your cooperation in filing appropriate and accurate certified payrolls is appreciated.

Sec. 31-53b. Construction safety and health course. Proof of completion required for employees on public building projects. Enforcement. Regulations. (a) Each contract entered into on or after July 1, 2007, for the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public building project by the state or any of its agents, or by an political subdivision of the state or any of its agents, where the total cost of all work to be performed by all contractors and subcontractors in connection with the contract is at least one hundred thousand dollars, shall contain a provision requiring that, not later than thirty days after the date such contract is awarded, each contractor furnish proof to the Labor Commissioner that all employees performing manual labor on or in such public building, pursuant to such contract, have completed a course of at least ten hours in duration in construction safety and health approved by the federal Occupational Safety and Health Administration or, in the case of telecommunications employees, have completed at least ten hours of training in accordance with 29 CFR 1910.268.

(b) Any employee required to complete a construction safety and health course required under subsection (a) of this section who has not completed the course shall be subject to removal from the worksite if the employee does not provide documentation of having completed such course by the fifteenth day after the date the employee is found to be in noncompliance. The Labor Commissioner or said commissioner's designee shall enforce this section.

(c) Not later than January 1, 2007, the Labor Commissioner shall adopt regulations, in accordance with the provisions of chapter 54, to implement the provisions of subsections (a) and (b) of this section. Such regulations shall require that the ten-hour construction safety and health courses required under subsection (a) of this section be conducted in accordance with federal Occupational Safety and Health Administration Training Institute standards, or in accordance with 29 CFR 1910.268, as appropriate. The Labor Commissioner shall accept as sufficient proof of compliance with the provisions of subsection (a) or (b) of this section a student course completion card issued by the federal Occupational Safety and Health Administration Training Institute, or such other proof of compliance said commissioner deems appropriate, dated no earlier than five years before the commencement date of such public works project.

(d) For the purposes of this section, "public building" means a structure, paid for in whole or in part with state funds, within a roof and within exterior walls or fire walls, designed for the housing, shelter, enclosure and support or employment of people, animals or property of any kind, including, but not limited to, sewage treatment plants and water treatment plants, "Public building" does not include site work, roads or bridges, rail lines, parking lots or underground water, sewer or drainage systems including pump houses or other utility systems.

CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION

CONTRACTORS WAGE CERTIFICATION FORM

I,_____of _____
Officer, Owner, Authorized Rep. Company Name

do hereby certify that the _____
Company Name

_____
Street

_____
City

and all of its subcontractors will pay all workers on the

_____
Project Name and Number

_____
Street and City

the wages as listed in the schedule of prevailing rates required for such project (a copy of which is attached hereto).

_____
Signed

Subscribed and sworn to before me this _____ day of _____,

_____
Notary Public

☞ Return to:

Connecticut Department of Labor
Wage & Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

Statute 31-55a

Last Updated: October 23, 2006

- Special Notice -

To All State and Political Subdivisions,Their Agents, and Contractors

Connecticut General Statute 31-55a - Annual adjustments to wage rates by contractors doing state work.

Each contractor that is awarded a contract on or after October 1, 2002, for (1) the construction of a state highway or bridge that falls under the provisions of section 31-54 of the general statutes, or (2) the construction, remodeling, refinishing, refurbishing, rehabilitation, alteration or repair of any public works project that falls under the provisions of section 31-53 of the general statutes shall contact the Labor Commissioner on or before July first of each year, for the duration of such contract, to ascertain the prevailing rate of wages on an hourly basis and the amount of payment or contributions paid or payable on behalf of each mechanic, laborer or worker employed upon the work contracted to be done, and shall make any necessary adjustments to such prevailing rate of wages and such payment or contributions paid or payable on behalf of each such employee, effective each July first.

- The prevailing wage rates applicable to any contract or subcontract awarded on or after October 1, 2002 are subject to annual adjustments each July 1st for the duration of any project which was originally advertised for bids on or after October 1, 2002.
- Each contractor affected by the above requirement shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.
- It is the ***contractor's*** responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's Web Site. The annual adjustments will be posted on the Department of Labor Web page: www.ctdol.state.ct.us. For those without internet access, please contact the division listed below.
- The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project. All subsequent annual adjustments will be posted on our Web Site for contractor access.

Any questions should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd., Wethersfield, CT 06109 at (860)263-6790.

Workplace Laws

Published by the Connecticut Department of Labor, Automation Support Unit

Revised: October 1, 2007

Informational Bulletin

Occupational Classifications

The Connecticut Department of Labor has the responsibility to properly determine "job classification" on prevailing wage projects covered under C.G.S. Section 31-53.

✓*Note: This information is intended to provide a sample of some occupational classifications for guidance purposes only. It is not an all-inclusive list of each occupation's duties. This list is being provided only to highlight some areas where a contractor may be unclear regarding the proper classification.*

On any construction project, an assortment of workers are needed to carry out all of the required tasks. Employees include various skilled crafts people, machine operators, general laborers, and apprentices. Prevailing wage rate schedules identify the classes of workers likely to be employed on each of the four types of construction projects. (If a contractor wants to use a class of worker not listed in a wage determination, there is a process for requesting the U.S. Department of Labor to establish a prevailing wage rate for that additional classification). (Contact U.S. Department of Labor at 202.693.0062 or 215.861.5800)

A registered apprentice is not a separate prevailing wage job classification. Apprentices are paid a percentage of the base rate received by the craft that they are training to become and the full fringe rate. This percentage increases in steps, as the apprentice advances through the stages of the apprenticeship process.

✎ Any questions regarding the proper classification should be directed to the Contract Compliance Unit, Wage and Workplace Standards Division, Connecticut Department of Labor, 200 Folly Brook Blvd, Wethersfield, CT 06109 at 860.263.6543.

Below are additional clarifications of specific job duties performed for certain classifications:

⇨ ***ASBESTOS WORKERS/INSULATORS***:

- Handle, install, apply, fabricate, distribute, prepare, alter, repair, or dismantle heat and frost insulation, including penetration and fire stopping work on all penetration fire stop systems.

⇨***BOILERMAKERS:***

- Erects hydro plants, incomplete vessels, steel stacks, storage tanks for water, fuel, etc. Builds incomplete boilers, repairs heat exchanges and steam generators.

⇨***BRICKLAYERS, CEMENT MASONS, CEMENT FINISHERS, MARBLE MASONS, PLASTERERS, STONE MASONS, PLASTERERS, STONE MASONS, TERRAZZO WORKERS, TILE SETTERS:***

- Lays building materials such as brick, structural tile and concrete cinder, glass, gypsum, terra cotta block. Cuts, tools and sets marble, sets stone, finishes concrete, applies decorative steel, aluminum and plastic tile, applies cements, sand, pigment and marble chips to floors, stairways, etc.

⇨***CARPENTERS, MILLWRIGHTS, PILEDRIVERMEN, LATHERS, RESILEINT FLOOR LAYERS, DOCK BUILDERS, DIVERS, DIVER TENDERS***:

- Constructs, erects, installs and repairs structures and fixtures of wood, plywood and wallboard. Installs, assembles, dismantles, moves industrial machinery. Drives piling into ground to provide foundations for structures such as buildings and bridges, retaining walls for earth embankments, such as cofferdams. Fastens wooden, metal or rockboard lath to walls, ceilings and partitions of buildings, acoustical tile layer, concrete form builder. Applies firestopping materials on fire resistive joint systems only. Installation of curtain/window walls only where attached to wood or metal studs.

- Assembly and installation of modular furniture/furniture systems.
  [New] a. Free-standing furniture is not covered. This includes: student chairs, study top desks, book box desks, computer furniture, dictionary stand, atlas stand, wood shelving, two- position information access station, file cabinets, storage cabinets, tables, etc.

⇨***CLEANING LABORER:***

- The clean up of any construction debris and the general cleaning, including sweeping, wash down, mopping, wiping of the construction facility, washing, polishing, dusting, etc., prior to the issuance of a certificate of occupancy falls under the *Labor classification.*

☞continued

⇨DELIVERY PERSONNEL:

- If delivery of supplies/building materials is to one common point and stockpiled there, prevailing wages are not required. If the delivery personnel are involved in the distribution of the material to multiple locations within the construction site then they would have to be paid prevailing wages for the type of work performed: laborer, equipment operator, electrician, ironworker, plumber, etc.

- An example of this would be where delivery of drywall is made to a building and the delivery personnel distribute the drywall from one "stockpile" location to further sub-locations on each floor. Distribution of material around a construction site is the job of a laborer/tradesman and not a delivery personnel.

⇨ELECTRICIANS:

- Install, erect, maintenance, alteration or repair of any wire, cable, conduit, etc., which generates, transforms, transmits or uses electrical energy for light, heat, power or other purposes. ****License required per Connecticut General Statutes: E-1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9.***

⇨ELEVATOR CONSTRUCTORS:

- Install, erect, maintenance and repair of all types of elevators, escalators, dumb waiters and moving walks. ****License required by Connecticut General Statutes: R-1,2,5,6.***

⇨FORK LIFT OPERATOR:

- Laborers Group 4) Mason Tenders - operates forklift solely to assist a mason to a maximum height of nine (9) feet only.
- Power Equipment Operator Group 9 - operates forklift to assist any trade, and to assist a mason to a height over nine (9) feet.

⇨GLAZIERS:

- Installs light metal sash, head sills, and 2-story aluminum storefronts.

⇨IRONWORKERS:

- Handling, sorting, and installation of reinforcing steel (rebar).
- Installation of aluminum window walls and curtain walls.
- Metal bridge rail (traffic), metal bridge handrail, and decorative security fence installation.

☞continued

⇨INSULATOR:

- Installing fire stopping systems/materials for "Penetration Firestop Systems": transit to cables, electrical conduits, insulated pipes, sprinkler pipe penetrations, ductwork behind radiation, electrical cable trays, fire rated pipe penetrations, natural polypropylene, HVAC ducts, plumbing bare metal, telephone and communication wires, and boiler room ceilings. Past practice using the applicable licensed trades, Plumber, Sheet Metal, Sprinkler Fitter, and Electrician, is not inconsistent with the Insulator classification and would be permitted.

⇨LEAD PAINT REMOVAL:

- Painter Rate -
  1) Removal of lead paint from bridges.
  2) Removal of lead paint as preparation of any surface to be repainted.
  3) Where removal is on a *Demolition* project prior to reconstruction.
- Laborer Rate-
  1) Removal of lead paint from any surface *NOT* to be repainted.
  2) Where removal is on a *TOTAL* Demolition project only.

⇨LABORERS:

- Acetylene burners, asphalt rakers, chain saw operators, concrete and power buggy operator, concrete saw operator, fence and guard rail erector, hand operated concrete vibrator operator, mason tenders, pipelayers (installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license), pneumatic drill operator, pneumatic gas and electric drill operator, powermen and wagon drill operator, air track operator, block paver, curb setters, blasters, concrete spreaders.

⇨PAINTERS:

- Maintenance, preparation, cleaning, blasting (water and sand, etc.), painting or application of any protective coatings of every description on all bridges and appurtenances of highways, roadways, and railroads. Painting, decorating, hardwood finishing, paper hanging, sign writing, scenic art work and drywall finishing for any and all types of building and residential work.

⇨PLUMBERS AND PIPEFITTERS:

- Installation, repair, replacement, alteration or maintenance of all plumbing, heating, cooling and piping. ****License required per Connecticut General Statutes: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2. S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4.***

⇨POWER EQUIPMENT OPERATORS:

- Operates several types of power construction equipment such as compressors, pumps, hoists, derricks, cranes, shovels, tractors, scrapers or motor graders, etc. Repairs and maintains equipment. ****License required, crane operators only, per Connecticut General Statutes.***

☞continued

⇨ROOFERS:

- Preparation of surface, tear-off and/or removal of any type of roofing, and/or clean-up of any areas where a roof is to be relaid.

⇨SHEET METAL WORKER:

- Fabrication, handling, assembling, erecting, altering, repairing, etc. of coated metal material panels and composite metal material panels when used on building exteriors and interiors as soffits, facia, louvers, partitions, wall panel siding, canopies, cornice, column covers, awnings, beam covers, cladding, sun shades, lighting troughs, spires, ornamental roofing, metal ceilings, mansards, copings, ornamental and ventilation hoods, vertical and horizontal siding panels, trim, etc. The sheet metal classification also applies to the vast variety of coated metal material panels and composite metal material panels that have evolved over the years as an alternative to conventional ferrous and non-ferrous metals like steel, iron, tin, copper, brass, bronze, aluminum, etc. Insulated metal and insulated composite panels are still installed by the Iron Worker. Fabrication, handling, assembling, erecting, altering, repairing, etc. of architectural metal roof, standing seam roof, composite metal roof, metal and composite bathroom/toilet partitions, aluminum gutters, metal and composite lockers and shelving, kitchen equipment, and walk-in coolers.

⇨SPRINKLER FITTERS:

Installation, alteration, maintenance and repair of fire protection sprinkler systems. ****License required per Connecticut General Statutes: F-1,2,3,4.***

⇨TILE, MARBLE AND TERRAZZO FINISHERS:

Assists and tends the tile setter, marble mason and terrazzo worker in the performance of their duties.

⇨TRUCK DRIVERS:

- Truck Drivers delivering asphalt are covered under prevailing wage while on the site and directly involved in the paving operation.
- Material men and deliverymen are not covered under prevailing wage as long as they are not directly involved in the construction process. If, they unload the material, they would then be covered by prevailing wage for the classification they are performing work in: laborer, equipment operator, etc.
- Hauling material off site is not covered provided they are not dumping it at a location outlined above.
- Driving a truck on site and moving equipment or materials on site would be considered covered work, as this is part of the construction process.

CONNECTICUT DEPARTMENT OF LABOR
Wage and Workplace Standards Division

FOOTNOTES

Please Note: If the "Benefits" listed on the schedule for the following occupations includes a letter(s) (+ a or + a+b for instance), refer to the information below.

Benefits to be paid at the appropriate prevailing wage rate for the listed occupation.

If the "Benefits" section for the occupation lists only a dollar amount, disregard the information below.

Bricklayers, Cement Masons, Cement Finishers, Plasters, Stone Masons
(Building Construction)
(Residential- Hartford, Middlesex, New Haven, New London and Tolland Counties)

a. Paid Holiday: Employees shall receive 4 hours for Christmas Eve holiday provided the employee works the regularly scheduled day before and after the holiday. Employees may schedule work on Christmas Eve and employees shall receive pay for actual hours worked in addition to holiday pay.

Bricklayer (Residential- Fairfield County)

a. Paid Holiday: If an employee works on Christmas Eve until noon he shall be paid for 8 hours.

Electricians
Fairfield County: West of the Five Mile River in Norwalk

a. $2.00 per hour not to exceed $14.00 per day.

Elevator Constructors: Mechanics

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, plus the Friday after Thanksgiving.

b. Vacation: Employer contributes 8% of basic hourly rate for 5 years or more of service or 6% of basic hourly rate for 6 months to 5 years of service as vacation pay credit.

Glaziers

a. Paid Holidays: Labor Day and Christmas Day.

Power Equipment Operators
(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Good Friday, Memorial day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day, provided the employee works 3 days during the week in which the holiday falls, if scheduled, and if scheduled, the working day before and the working day after the holiday. Holidays falling on Saturday may be observed on Saturday, or if the employer so elects, on the preceding Friday.

Ironworkers

a. Paid Holiday: Labor Day provided employee has been on the payroll for the 5 consecutive workdays prior to Labor Day.

Laborers (Tunnel Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day and Christmas Day. No employee shall be eligible for holiday pay when he fails, without cause, to work the regular workday preceding the holiday or the regular workday following the holiday.

Roofers

a. Paid Holidays: July 4th, Labor Day, and Christmas Day provided the employee is employed 15 days prior to the holiday.

Sprinkler Fitters

a. Paid Holidays: Memorial Day, July 4th, Labor Day, Thanksgiving Day and Christmas Day, provided the employee has been in the employment of a contractor 20 working days prior to any such paid holiday.

Truck Drivers
(Heavy and Highway Construction & Building Construction)

a. Paid Holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas day, and Good Friday, provided the employee has at least 31 days service and works the last scheduled day before and the first scheduled day after the holiday.

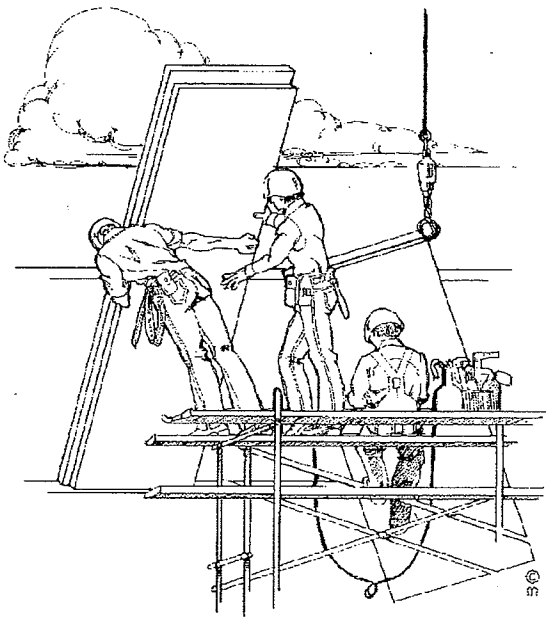
~NOTICE~

TO ALL CONTRACTING AGENCIES

Please be advised that Connecticut General Statutes Section 31-53, requires the contracting agency to certify to the Department of Labor, the total dollar amount of work to be done in connection with such public works project, regardless of whether such project consists of one or more contracts.

Please find the attached "Contracting Agency Certification Form" to be completed and returned to the Department of Labor, Wage and Workplace Standards Division, Public Contract Compliance Unit.

✎ Inquiries can be directed to (860)263-6543.



CONNECTICUT DEPARTMENT OF LABOR
WAGE AND WORKPLACE STANDARDS DIVISION
CONTRACT COMPLIANCE UNIT

CONTRACTING AGENCY CERTIFICATION FORM

I, _____, acting in my official capacity as _____,
authorized representative title

for _____, located at _____,
contracting agency address

do hereby certify that the total dollar amount of work to be done in connection with

_____, located at _____,
project name and number address

shall be $_____, which includes all work, regardless of whether such project

consists of one or more contracts.

CONTRACTOR INFORMATION

Name:_____

Address:_____
Authorized Representative:_____
Approximate Starting Date: _____

Approximate Completion Date:_____

_____ _____
Signature Date

Return To: Connecticut Department of Labor
Wage & Workplace Standards Division
Contract Compliance Unit
200 Folly Brook Blvd.
Wethersfield, CT 06109

Date Issued: _____

In accordance with Connecticut General Statutes, 31-53
Certified Payrolls with a statement of compliance
shall be submitted monthly to the contracting agency.

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

WEEKLY PAYROLL

Connecticut Department of Labor
Wage and Workplace Standards Division
200 Folly Brook Blvd.
Wethersfield, CT 06109

CONTRACTOR NAME AND ADDRESS:			SUBCONTRACTOR NAME & ADDRESS	WORKER'S COMPENSATION INSURANCE CARRIER POLICY # EFFECTIVE DATE: EXPIRATION DATE:
PAYROLL NUMBER	Week-Ending Date	PROJECT NAME & ADDRESS		

PERSON/WORKER AND ADDRESS	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION TRADE LICENSES TYPE & NUMBER	DAY AND DATE S	M	T	W	TH	F	S HOURS WORKED EACH DAY	S-TIME O-TIME	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
											S-TIME O-TIME	$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
											S-TIME O-TIME	$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
											S-TIME O-TIME	$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
											S-TIME O-TIME	$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							

9/1/2005 *IF REQUIRED
WWS-CP1

*SEE REVERSE SIDE

Weekly Payroll Certification For
Public Works Projects (Continued)

PAYROLL CERTIFICATION FOR PUBLIC WORKS PROJECTS

WEEKLY PAYROLL

Week-Ending Date:
Contractor or Subcontractor Business Name:

PERSON/WORKER AND ADDRESS	APPR RATE %	MALE/ FEMALE AND RACE*	WORK CLASSIFICATION TRADE LICENSES TYPE & NUMBER	DAY AND DATE S	M	T	W	TH	F	S HOURS WORKED EACH DAY	S-TIME O-TIME	BASE HOURLY RATE TOTAL FRINGE BENEFIT PLAN CASH	TYPE OF FRINGE BENEFITS Per Hour 1 through 6 (see back)	GROSS PAY FOR ALL WORK PERFORMED THIS WEEK	TOTAL DEDUCTIONS FICA	FEDERAL WITH-HOLDING	STATE WITH-HOLDING	OTHER	GROSS PAY FOR THIS PREVAILING RATE JOB	CHECK # AND NET PAY
											S-TIME O-TIME	$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
											S-TIME O-TIME	$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
											S-TIME O-TIME	$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
											S-TIME S-TIME	$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							
											S-TIME S-TIME	$ Base Rate $ Cash Fringe	1. $ 2. $ 3. $ 4. $ 5. $ 6. $							

*IF REQUIRED

9/1/2005
WWS-CP2

NOTICE: THIS PAGE MUST BE ACCOMPANIED BY A COVER PAGE (FORM # WWS-CP1)

***FRINGE BENEFITS EXPLANATION (P):**

Bona fide benefits paid to approved plans, funds or programs, except those required by Federal or State Law (unemployment tax, worker's compensation, income taxes, etc.)

Please specify the type of benefits provided:

1) Medical or hospital care _____
2) Pension or retirement _____
3) Life Insurance _____
4) Disability _____
5) Vacation, holiday _____
6) Other (please specify)_____

CERTIFIED STATEMENT OF COMPLIANCE

For the week ending date of _____,

I, _____of _____, (hereafter known as Employer)

in my capacity as _____ (title) do hereby certify and state:

All persons employed on said project have been paid the full weekly wages earned by them during the week in accordance with Connecticut General Statutes, section 31-53, as amended. Further, I hereby certify and state the following:

A) The records submitted are true and accurate;

B) The rate of wages paid to each mechanic, laborer or workman and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as defined in Connecticut General Statutes, section 31-53 (h), are not less than the prevailing rate of wages and the amount of payment or contributions paid or payable on behalf of each such employee to any employee welfare fund, as determined by the Labor Commissioner pursuant to subsection Connecticut General Statutes, section 31-53 (d), and said wages and benefits are not less than those which may also be required by contract;

C) The Employer has complied with all of the provisions in Connecticut General Statutes, section 31-53 (and Section 31-54 if applicable for state highway construction);

D) Each such employee of the Employer is covered by a worker's compensation insurance policy for the duration of his employment which proof of coverage has been provided to the contracting agency;

E) The Employer does not receive kickbacks, which means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided directly or indirectly, to any prime contractor, prime contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a prime contractor in connection with a subcontractor relating to a prime contractor; and

F) The Employer is aware that filing a certified payroll which he knows to be false is a class D felony for which the employer may be fined up to five thousand dollars, imprisoned for up to five years or both.

Submitted on

_____

(Date) (Signature) (Title)

*****THIS IS A PUBLIC DOCUMENT*****
*****DO NOT INCLUDE SOCIAL SECURITY NUMBERS*****

EXHIBIT H

To

MSW FLOOR REPAIRS AT THE MID-CONNECTICUT WASTE PROCESSING FACILITY AGREEMENT

SCHEDULE OF PREVAILING WAGES

Project MSW Floor Repair at The Waste Processing Facility On Maxim Road

Minimum Rates and Classifications
for Building Construction
B 10145

Connecticut Department of Labor
Wage and Workplace Standards Division

By virtue of the authority vested in the Labor Commissioner under provisions of Section 31-53 of the General Statutes of Connecticut, as amended, the following are declared to be the prevailing rates and welfare payments and will apply only where the contract is advertised for bid within 20 days of the date on which the rates are established. Any contractor or subcontractor not obligated by agreement to pay to the welfare and pension fund shall pay this amount to each employee as part of his/her hourly wages.

Project Number **Project Town Hartford**

Project MSW Floor Repair at The Waste Processing Facility On Maxim Road

CLASSIFICATION	Hourly Rate	Benefits
1a) Asbestos Worker/Insulator (Includes application of insulating materials, protective coverings, coatings, & finishes to all types of mechanical systems; application of firestopping material for wall openings & penetrations in walls, floors, ceilings.	28.86	16.83
1b) Asbestos/Toxic Waste Removal Laborers: Asbestos removal and encapsulation (except its removal from mechanical systems which are not to be scrapped), toxic waste removers, blasters.**See Laborers Group 7**		
1c) Hazardous Material Handler: Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials, whether they contain asbestos or not, from mechanical systems.	20.50	10.30
2) Boilermaker	32.73	8.72 + 33%
3a) Bricklayer, Cement Mason, Cement Finishers, Plasterers, Stone Masons	30.50	18.04 + a
3b) Tile Setter	29.34	15.61

As of: **Tuesday, October 23, 2007**

Project MSW Floor Repair at The Waste Processing Facility On Maxim Road

3c) Terrazzo Workers, Marble Setters	29.59	17.36
3d) Tile, Marble & Terrazzo Finishers	23.90	13.53
------LABORERS------		
4) Group 1: Laborers, carpenter tenders, wrecking laborers, fire watchers.	23.00	13.40
4a) Group 2: Mortar mixers, plaster tenders, power buggy operators, powdermen, fireproofer/mixer/nozzleman.	23.25	13.40
4b) Group 3: Jackhammer operators, mason tenders.	23.50	13.40
4c) **Group 4: Pipelayers (Installation of water, storm drainage or sewage lines outside of the building line with P6, P7 license) [If using this classification call the Labor Department for clarification]	23.85	13.40
4d) Group 5: Air track operators, Sand blasters.	23.75	13.40
4e) Group 6: Nuclear toxic waste removers, blasters.	26.00	13.40
4f) Group 7: Asbestos removal and encapsulation (except it's removal from mechanical systems which are not to be scrapped).	24.00	13.40

As of: **Tuesday, October 23, 2007**

Project MSW Floor Repair at The Waste Processing Facility On Maxim Road

4g) Group 8: Bottom men on open air caisson, cylindrical work and boring crew.	23.50	13.40
4h) Group 9: Top men on open air caisson, cylindrical work and boring crew.	23.00	13.40
5) Carpenter, Acoustical Tile Worker, Concrete Form-Wood Builder, Floor Covering (Including Drywall Hanging), Modular-Furniture Systems Installers.	26.65	16.21
5a) Millwrights	27.40	16.21
6) Electrical Worker, Cable Splicer (electric) (Trade License required: E1,2 L-5,6 C-5,6 T-1,2 L-1,2 V-1,2,7,8,9)	33.10	18.02
7a) Elevator Mechanic (Trade License required: R-1,2,5,6)	39.595	14.885+a+b
8) Glazier (Trade License required: FG-1,2)	30.38	13.10 + a
9) Ironworker, Ornamental, Reinforcing, Structural, and Precast Concrete Erection	31.05	21.18 + a
----OPERATORS----		
Group 1: Crane handling or erecting structural steel or stone, hoisting engineer 2 drums or over, front end loader (7 cubic yards or over); work boat 26 ft. and over.	32.05	16.05 + a

As of: **Tuesday, October 23, 2007**

Project MSW Floor Repair at The Waste Processing Facility On Maxim Road

Group 2: Cranes (100 ton rated capacity & over), backhoe over 2 cubic yards, piledriver ($3.00 premium when operator controls hammer).	31.73	16.05 + a
Group 3: Backhoe, cranes (under 100 ton rated capacity), gradall, master mechanic, hoisting engineer (all types of equipment where a drum and cable are used to hoist, pull or drag material regardless of motive power of operation); rubber tire backhoe	30.99	16.05 + a
Group 4: Trenching machines; lighter derrick; CMI Machine or similar; Koehring Loader (skooper).	30.60	16.05 + a
Group 5: Specialty Railroad Equipment; Asphalt Spreader; Asphalt Reclaiming Machine; Line Grinder; Concrete pumps; drills with self contained power units; Boring machine; Post hole digger; Auger; Pounder; Well Digger	30.01	16.05 + a
Group 5 continued: Milling machine (over 24" Mandrell); Side Boom; Combination hoe and loader; Directional driller; Grader.	30.01	16.05 + a
Group 6: Front end loader (3 up to 7 cubic yards); Bulldozer.	29.70	16.05 + a
Group 7: Asphalt roller, concrete saws and cutters (ride on types), vermeer concrete cutter, Stump Grinder; Scraper; Snooper; Skidder; Milling Machine (24" and under Mandrell).	29.36	16.05 + a
Group 8: Mechanic, grease truck operator, hydroblaster; barrier mover; power stone spreader; welding; work boat under 26 ft.; transfer machine.	28.96	16.05 + a
Group 9: Front end loader (under 3 cubic yards), skid steer loader regardless of attachments, (Bobcat or Similar): forklift, power chipper; landscape equipment (including Hydroseeder).	28.53	16.05 + a
Group 10: Vibratory hammer; ice machine; diesel and air, hammer, etc.	27.96	16.05 + a

As of: **Tuesday, October 23, 2007**

Project MSW Floor Repair at The Waste Processing Facility On Maxim Road

Group 11: Conveyor, earth roller, power pavement breaker (whiphammer), robot demolition equipment.	26.49	16.05 + a
Group 12: Wellpoint operator.	26.43	16.05 + a
Group 13: Compressor battery operator.	25.85	16.05 + a
Group 14: Elevator operator; tow motor operator (solid tire no rough terrain).	24.71	16.05 + a
Group 15: Generator operator, compressor operator, pump operator, welding machine operator.	24.30	16.05 + a
Group 16: Maintenance engineer.	23.65	16.05 + a
Group 17: Portable asphalt plant operator; portable crusher plant operator; portable concrete plant operator	25.98	16.05 + a
Group 18: Power safety boat; vacuum truck; zim mixer; sweeper	25.54	16.05 + a
------PAINTERS (Including Drywall Finishing)------		
10a) Brush, Roller	26.87	13.10

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10b) Taper	27.62	13.10
10c) Paperhanger	27.37	13.10
10d) Red Label	27.37	13.10
10e) Blast and Spray	29.87	13.10
10f) Tanks, Tower, Swingstage	28.87	13.10
11) Plumber (Trade License required: P-1,2,6,7,8,9 J-1,2,3,4 SP-1,2)	33.57	18.96
12) Post Digger, Well Digger, Pile Testing Machine	25.25	9.05 + a
13) Roofer (composition)	28.40	13.25
14) Roofer (slate & tile)	28.90	13.25
15) Sheetmetal Worker (Trade License required for HVAC and Ductwork: SM-1,SM-2,SM-3,SM-4,SM-5,SM-6)	29.55	23.15

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16) Pipefitter (Including HVAC work) (Trade License required: S-1,2,3,4,5,6,7,8 B-1,2,3,4 D-1,2,3,4, G-1, G-2, G-8 & G-9)	33.57	18.96
------TRUCK DRIVERS------		
17a) 2 Axle	25.43	11.5225
17b) 3 Axle, 2 Axle Ready Mix	25.53	11.5225
17c) 3 Axle Ready Mix	25.58	11.5225
17d) 4 Axle, Heavy Duty Trailer up to 40 tons	25.63	11.5225
17e) 4 Axle Ready Mix	25.68	11.5225
17f) Heavy Duty Trailer (40 Tons and Over)	25.88	11.5225
17g) Specialized Earth Moving Equipment (Other Than Conventional Type on-the-Road Trucks and Semi-Trailers, Including Euclids)	25.68	11.5225
18) Sprinkler Fitter (Trade License required: F-1,2,3,4)	36.50	15.10 + a

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Welders: Rate for craft to which welding is incidental.

Note: Hazardous waste removal work receives additional $1.50 per hour for power equipment operators and $1.25 per hour for truck drivers.

****Note: Hazardous waste premium $1.50 per hour over classified rate***

Crane with 150 ft. boom (including jib) - $.75 extra
Crane with 200 ft. boom (including jib) - $1.25 extra
Crane with 250 ft. boom (including jib) - $2.50 extra
Crane with 300 ft. boom (including jib) - $3.50 extra
Crane with 400 ft. boom (including jib) - $4.00 extra
Crane with 500 ft. boom (including jib) - $5.00 extra

All classifications that indicate a percentage of the fringe benefits must be calculated at the percentage rate times the "base hourly rate".

Apprentices duly registered under the Commissioner of Labor's regulations on "Work Training Standards for Apprenticeship and Training Programs" Section 31-51-d-1 to 12, are allowed to be paid the appropriate percentage of the prevailing journeymen hourly base and the full fringe benefit rate, providing the work site ratio shall not be less than one full-time journeyperson instructing and supervising the work of each apprentice in a specific trade.

The Prevailing wage rates applicable to this project are subject to annual adjustments each July 1st for the duration of the project.

Each contractor shall pay the annual adjusted prevailing wage rate that is in effect each July 1st, as posted by the Department of Labor.

It is the contractor's responsibility to obtain the annual adjusted prevailing wage rate increases directly from the Department of Labor's website.

The annual adjustments will be posted on the Department of Labor's Web page: www.ct.gov/dol

The Department of Labor will continue to issue the initial prevailing wage rate schedule to the Contracting Agency for the project.

All subsequent annual adjustments will be posted on our Web Site for contractor access.

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Effective October 1, 2005 - Public Act 05-50: any person performing the work of any mechanic, laborer, or worker shall be paid prevailing wage

All Person who perform work ON SITE must be paid prevailing wage for the appropriate mechanic, laborer, or worker classification.

All certified payrolls must list the hours worked and wages paid to All Persons who perform work ON SITE regardless of their ownership i.e.: (Owners, Corporate Officers, LLC Members, Independent Contractors, et. al)
Reporting and payment of wages is required regardless of any contractual relationship alleged to exist between the contractor and such person.

Please direct any questions which you may have pertaining to classification of work and payment of prevailing wages to the Wage and Workplace Standards Division, telephone (860)263-6790.

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EXHIBIT I

To

MSW FLOOR REPAIRS AT THE MID-CONNECTICUT WASTE PROCESSING FACILITY AGREEMENT

SEEC FORM 11
NOTICE TO EXECUTIVE BRANCH STATE CONTRACTORS AND PROSPECTIVE STATE CONTRACTORS OF CAMPAIGN CONTRIBUTION AND SOLICITATION BAN

SEEC FORM 11

NOTICE TO EXECUTIVE BRANCH STATE CONTRACTORS AND PROSPECTIVE STATE CONTRACTORS OF CAMPAIGN CONTRIBUTION AND SOLICITATION BAN

This notice is provided under the authority of Connecticut General Statutes 9-612(g)(2), as amended by P.A. 07-1, and is for the purpose of informing state contractors and prospective state contractors of the following law (italicized words are defined on the following page):

Campaign Contribution and Solicitation Ban

No *state contractor*, *prospective state contractor*, *principal of a state contractor or principal of a prospective state contractor*, with regard to a *state contract* or *state contract solicitation* with or from a state agency in the executive branch or a quasi-public agency or a holder, or principal of a holder of a valid prequalification certificate, shall make a contribution to, or *solicit* contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of Governor, Lieutenant Governor, Attorney General, State Comptroller, Secretary of the State or State Treasurer, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee;

In addition, no holder or principal of a holder of a valid prequalification certificate, shall make a contribution to, or solicit contributions on behalf of (i) an exploratory committee or candidate committee established by a candidate for nomination or election to the office of State senator or State representative, (ii) a political committee authorized to make contributions or expenditures to or for the benefit of such candidates, or (iii) a party committee.

Duty to Inform

State contractors and prospective state contractors are required to inform their principals of the above prohibitions, as applicable, and the possible penalties and other consequences of any violation thereof.

Penalties for Violations

Contributions or solicitations of contributions made in violation of the above prohibitions may result in the following civil and criminal penalties:

Civil penalties--$2000 or twice the amount of the prohibited contribution, whichever is greater, against a principal or a contractor. Any state contractor or prospective state contractor which fails to make reasonable efforts to comply with the provisions requiring notice to its principals of these prohibitions and the possible consequences of their violations may also be subject to civil penalties of $2000 or twice the amount of the prohibited contributions made by their principals.

Criminal penalties—Any knowing and willful violation of the prohibition is a Class D felony, which may subject the violator to imprisonment of not more than 5 years, or $5000 in fines, or both.

Contract Consequences

Contributions made or solicited in violation of the above prohibitions may result, in the case of a state contractor, in the contract being voided.

Contributions made or solicited in violation of the above prohibitions, in the case of a prospective state contractor, shall result in the contract described in the state contract solicitation not being awarded to the prospective state contractor, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

The State will not award any other state contract to anyone found in violation of the above prohibitions for a period of one year after the election for which such contribution is made or solicited, unless the State Elections Enforcement Commission determines that mitigating circumstances exist concerning such violation.

Additional information and the entire text of P.A 07-1 may be found on the website of the State Elections Enforcement Commission, www.ct.gov/seec. Click on the link to "State Contractor Contribution Ban."

Definitions:

"State contractor" means a person, business entity or nonprofit organization that enters into a state contract. Such person, business entity or nonprofit organization shall be deemed to be a state contractor until December thirty-first of the year in which such contract terminates. "State contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Prospective state contractor" means a person, business entity or nonprofit organization that (i) submits a response to a state contract solicitation by the state, a state agency or a quasi-public agency, or a proposal in response to a request for proposals by the state, a state agency or a quasi-public agency, until the contract has been entered into, or (ii) holds a valid prequalification certificate issued by the Commissioner of Administrative Services under section 4a-100. "Prospective state contractor" does not include a municipality or any other political subdivision of the state, including any entities or associations duly created by the municipality or political subdivision exclusively amongst themselves to further any purpose authorized by statute or charter, or an employee in the executive or legislative branch of state government or a quasi-public agency, whether in the classified or unclassified service and full or part-time, and only in such person's capacity as a state or quasi-public agency employee.

"Principal of a state contractor or prospective state contractor" means (i) any individual who is a member of the board of directors of, or has an ownership interest of five per cent or more in, a state contractor or prospective state contractor, which is a business entity, except for an individual who is a member of the board of directors of a nonprofit organization, (ii) an individual who is employed by a state contractor or prospective state contractor, which is a business entity, as president, treasurer or executive vice president, (iii) an individual who is the chief executive officer of a state contractor or prospective state contractor, which is not a business entity, or if a state contractor or prospective state contractor has no such officer, then the officer who duly possesses comparable powers and duties, (iv) an officer or an employee of any state contractor or prospective state contractor who has *managerial or discretionary responsibilities with respect to a state contract,* (v) the spouse or a *dependent child* who is eighteen years of age or older of an individual described in this subparagraph, or (vi) a political committee established or controlled by an individual described in this subparagraph or the business entity or nonprofit organization that is the state contractor or prospective state contractor.

"State contract" means an agreement or contract with the state or any state agency or any quasi-public agency, let through a procurement process or otherwise, having a value of fifty thousand dollars or more, or a combination or series of such agreements or contracts having a value of one hundred thousand dollars or more in a calendar year, for (i) the rendition of services, (ii) the furnishing of any goods, material, supplies, equipment or any items of any kind, (iii) the construction, alteration or repair of any public building or public work, (iv) the acquisition, sale or lease of any land or building, (v) a licensing arrangement, or (vi) a grant, loan or loan guarantee. "State contract" does not include any agreement or contract with the state, any state agency or any quasi-public agency that is exclusively federally funded, an education loan or a loan to an individual for other than commercial purposes.

"State contract solicitation" means a request by a state agency or quasi-public agency, in whatever form issued, including, but not limited to, an invitation to bid, request for proposals, request for information or request for quotes, inviting bids, quotes or other types of submittals, through a competitive procurement process or another process authorized by law waiving competitive procurement.

"Managerial or discretionary responsibilities with respect to a state contract" means having direct, extensive and substantive responsibilities with respect to the negotiation of the state contract and not peripheral, clerical or ministerial responsibilities.

"Dependent child" means a child residing in an individual's household who may legally be claimed as a dependent on the federal income tax of such individual.

"Solicit" means (A) requesting that a contribution be made, (B) participating in any fund-raising activities for a candidate committee, exploratory committee, political committee or party committee, including, but not limited to, forwarding tickets to potential contributors, receiving contributions for transmission to any such committee or bundling contributions, (C) serving as chairperson, treasurer or deputy treasurer of any such committee, or (D) establishing a political committee for the sole purpose of soliciting or receiving contributions for any committee. Solicit does not include: (i) making a contribution that is otherwise permitted by Chapter 155 of the Connecticut General Statutes; (ii) informing any person of a position taken by a candidate for public office or a public official, (iii) notifying the person of any activities of, or contact information for, any candidate for public office; or (iv) serving as a member in any party committee or as an officer of such committee that is not otherwise prohibited in this section.