

## HILFIKER MSE SQUARE PANEL WALL SYSTEM



#### GENERAL NOTES

#### DESIGN CRITERIA

- I. THE ATTACHED DETAILS ARE BASED ON THE ASSUMPTIONS THAT THE MATERIAL WITHIN THE REINFORCED VOLUME, METHODS OF CONSTRUCTION AND QUALITY OF PREFABRICATED COMPONENTS MEET THE GOVERNING AGENCIES SPECIFICATION FOR MECHANICALLY STABILIZED EARTH STRUCTURES
- 2. MINIMUM DESIGN PARAMETERS

SEE WALL CONTROL DRAWINGS FOR SOIL CHARACTERISTICS OF FOUNDATION MATERIAL TO BE USED IN THE DESIGN OF THE WALL SYSTEM. THE CONTRACTOR SHALL PROVIDE SOIL DESIGN PARAMETERS FOR BACKFILL MATERIAL BASED ON THE ACTUAL SOIL CHARACTERISTICS UNTIZED AT THE SITE. THE VALUE OF THE INTERNAL FRICTION ANGEL, PHI, THE COHESION, C, AND THE UNIT WEIGHT, GAMMA, SHALL BE PROVIDED IN THE SHOP DRAWINGS.

EXTERNAL STABILITY

 $\begin{array}{ccc} \textit{OVERTURNING} & \geq 2.0 \\ \textit{SLIDING} & \geq 1.5 \\ \textit{BEARING PRESSURE} & \geq 2.5 \\ \textit{OVERALL STABILITY} & \geq 1.5 \end{array}$ 

INTERNAL STABILITY

PULLOUT

STEEL YIELD STRESS = 0.47 F y

SFRVICE LIFE = 75 YEARS

LIVE LOAD SURCHARGE = 250 PSF

- 3. THE MAXIMUM APPLIED BEARING PRESSURE AT THE INTERFACE OF THE FOUNDATION AND SELECT BACKFILL MATERIAL IS SHOWN ON THE PLANS. THE BEARING PRESSURE SHOWN IS THE MAXIMUM FOR THE GIVEN BASE MAT LENGTH. IT IS THE RESPONSIBILITY OF OTHERS TO DETERMINE THAT THE BEARING PRESSURE IS ALLOWABLE FOR THAT LOCATION.
- 4. ANY UNSUITABLE FOUNDATION MATERIAL BELOW THE REINFORCED VOLUME AS DETERMINED BY THE ENGINEER SHALL BE EXCAVATED AND REPLACED WITH SUITABLE MATERIAL AS DIRECTED BY THE ENGINEER.
- THE DESIGN CONTAINED ON THESE DRAWINGS IS BASED ON INFORMATION PROVIDED BY OTHERS. ON THE BASIS OF THIS INFORMATION, T&B STRUCTURAL SYSTEMS IS RESPONSIBLE FOR THE INTERNAL STABILITY OF THE STRUCTURE. EXTERNAL STABILITY DESIGN INCLUDING FOUNDATION AND SLOPE STABILITY IS THE RESPONSIBILITY OF OTHERS.

#### WALL CONSTRUCTION

- I. WALLS FOUNDED ON CURVES SHALL HAVE THEIR PANELS DIMENSIONED AS A SERIES OF CORDS (AS DIMENSIONED IN SHOP DRAWINGS) IN ORDER TO MATCH THE REQUIRED WALL RADIUS.
- 2. FOR LOCATION AND ALIGNMENT OF THE MSE STRUCTURES REFERENCE THE RETAINING WALL CONTROL PLANS.
- 3. IF MANHOLE AND DROP INLETS ARE REQUIRED, THEY SHALL BE LOCATED AS SHOWN ON THE RETAINING WALL ELEVATION DRAWINGS.
- 4. IF PILES ARE LOCATED WITHIN THE REINFORCED VOLUME THEY SHALL BE DRIVEN PRIOR TO CONSTRUCTION OF THE WALL UNLESS AN ALTERNATE METHOD IS USED TO ISOLATE THE COLUMNS FROM THE REINFORCED VOLUME AS APPROVED BY THE ENGINEER.
- 5. BACKFILL MATERIAL SHALL BE COMPACTED IN ACCORDANCE WE WITH SECTION 548 TO A LEVEL 2" (PLUS OR MINUS) ABOVE THE ELEVATION OF THE SOIL REINFORCING ELEMENT. NO SOIL REINFORCEMENT SHALL BE ATTACHED TO ANY PANEL BEFORE THE BACKFILL IS PLACED AT THE REQUIRED ELEVATION AND IS COMPACTED.
- 6. STRUCTURES GREATER THAN 20 FEET SHALL HAVE THE FINISHED GRADE PLACED AND COMPACTED AT THE FRONT FACE OF THE STRUCTURE BEFORE THE STRUCTURE HEIGHT EXCEEDS 20 FEET. FINISH GRADE SHALL BE COMPACTED TO 95 % OF AASHTO T-180 UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

- 7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ANY GUARDRAIL POSTS PRIOR TO PLACING THE TOP ROW OF SOIL REINFORCEMENT. THE POST SPACING SHALL BE ADJUSTED TO AVOID CONFLICTS WITH THE LONGITUDINAL SOIL REINFORCING WIRE. CUTTING OF THE LONGITUDINAL WIRE SHALL BE ALLOWED ONLY AS DIRECTED BY THE ENGINEER.
- 8. IF EXISTING OR FUTURE STRUCTURES ARE TO BE PLACED IN THE REINFORCED VOLUME THAT INTERFERE WITH THE PROPER PLACEMENT OF THE SOIL REINFORCEMENT THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR A COURSE OF ACTION.
- 7. TOP COPING PANELS BENEATH CAST-IN-PLACE COPING SHALL HAVE I/2" DOWELS PROTRUDING FROM THEIR TOP EDGE.
- O. FOR OTHER INFORMATION PERTAINING TO THE CONSTRUCTION OF THE HILFIKER RETAINING WALL PLEASE REFER TO T&B STRUCTURAL SYSTEMS ERECTION MANUAL.
- II. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DEFLECT THE TOP ROW OF SOIL REINFORCEMENT DOWNWARD SO AS TO NOT CONFLICT WITH ROADWAY MIXING OPERATIONS AND/OR ROADWAY CONSTRUCTION OPERATIONS. ANY SOIL REINFORCING MATERIAL THAT IS DAMAGED SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.

#### MISCELLANEOUS NOTES

I. NOMINAL SOIL REINFORCING GRID LENGTH

THE WELDED WIRE MESH IS MANUFACTURED IN LENGTHS CORRESPONDING TO THE DIMENSION "B" AS GIVEN IN THE RETAINING WALL ELEVATIONS. THE ACTUAL LENGTH FROM THE FRONT FACE OF THE PANEL TO THE TAIL OF THE SOIL REINFORCING GRID IS PLUS 12" THIS ACCOUNTS FOR THE THICKNESS OF THE PANEL AND THE LOCATION OF THE CONNECTION OF THE SOIL REINFORCING MAT WITH THE PANEL ANCHOR. THE FOUNDATION SHALL BE EXCAVATED TO AN EXTENT OF "B" PLUS 12".

2. SELECT BACKFILL QUANTITY

THE REQUIRED VOLUME OF IN-PLACE SELECT BACKFILL IS CALCULATED BY MULTIPLYING THE RETAINING WALL FACE AREA BY THE SOIL REINFORCING LENGTH. THIS IS PERFORMED AT EACH INDIVIDUAL SEGMENT OF WALL FOR EACH CORRESPONDING "B". THE BACKFILL QUANTITY IF GIVEN BY T&B STRUCTURAL SYSTEMS IS AN ESTIMATE ONLY. THE CONTRACTOR IS ULTIMATELY TO DETERMINE THE QUANTITY OF SELECT BACKFILL MATERIAL THAT IS REQUIRED.

3. PANEL FINISH

THE CONCRETE PANELS SHALL HAVE A PLAIN STEEL FORM FINISH UNLESS OTHERWISE SPECIFIED ON THE RETAINING WALL CONTROL PLANS.

- 4. THE FOLLOWING MATERIALS ARE SUPPLIED BY T&B STRUCTURAL SYSTEMS
  - PRECAST CONCRETE FACING PANEL
  - SOIL REINFORCING GRIDS
  - CONNECTION PINS
  - 1/2" DIAMETER ALIGNMENT PINS • 60 DURO 3/4" X 8" BEARING PADS
  - 60 DURO 3/4" X 8" BEARING PAUS

     600 DURO 3/4" X 8" BEARING PAUS

     600 DURO 3/4" X 8" BEARING PAUS

     600 DURO 3/4" X 8" BEARING PAUS
  - SYNTHETIC INDUSTRIES GEOTEX 401 NONWOVEN GEOTEXTILE FILTER FABRIC

ANY OTHER MATERIAL REQUIRED TO BUILD THE MSE STRUCTURES ACCORDING TO THE GOVERNING SPECIFICATION SHALL BE SUPPLIED BY THE CONTRACTOR.

5. T&B STRUCTURAL SYSTEM SUPPLIES MECHANICALLY STABILIZED EARTH STRUCTURAL COMPONENTS FOR USE WITH THE HILFIKER RETAINING WALL SYSTEMS FOR THE STRUCTURES DETAILED HEREIN. THE ERECTION MANUAL PROVIDED BY T&B STRUCTURAL SYSTEMS IS A GENERAL GUIDELINE FOR ERECTING THE HILFIKER RETAINING WALL SYSTEM. ALL QUALITY CONTROL PROCEDURES, STAGING PROCEDURES, MATERIAL HANDLING, AND SAFETY IS THE RESPONSIBILITY OF THE CONTRACTOR. THIS DOES NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION TO CONSTRUCT THE RETAINING WALL ACCORDING TO THE PROJECT PLANS AND SPECIFICATIONS AND ALL LAWS OF THE GOVERNING STATE.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

\*\*THIS SYSTEM FOR USE IN MODERATELY OR SLIGHT AGGRESSIVE ENVIRONMENTS ONLY\*\*

RETAINING WALL SYSTEM HILFIKER SQUARE PANEL

Designed By

Drawn By

TPT

Checked By

TBW

Takes Dates

Approved By

State Structures Design Engineer

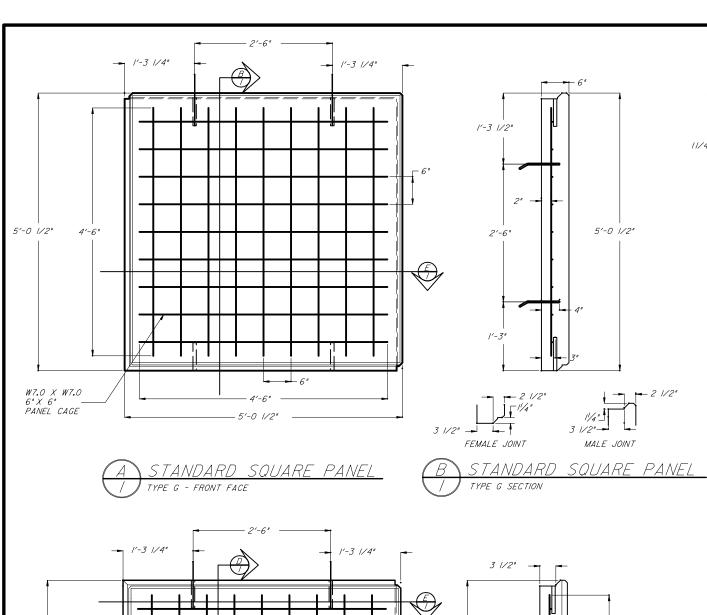
Revision Sheet No. Index No.

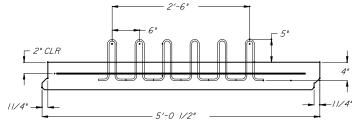
1 of 13 5021

HILFIKER PRODUCTS ARE COVERED BY UNTIED STATES AND FOREIGN PATENTS AND PATENTS PENDING. MATERIAL CONTAINED HERE WITHIN IS PROPRIETARY PROPERTY OF TAB STRUCTURAL SYSTEMS AND MAY NOT BE REPRODUCED OR TRANSMITTED. US PATENTS 4.260.296/4.324.508/4.334.572/4.616.959/4.661.023/4.929.125/4.923.879/4.117.686/4.505.621/5.484.235.7.702.208/5.722.799/0.P.

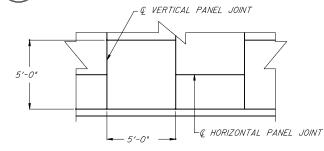
THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FOOT CONSULTANT. TBSS IS CERTIFYING THE INTERNAL STABILITY OF THE MSE MASS ONLY. ALL EXTERNAL STABILITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.



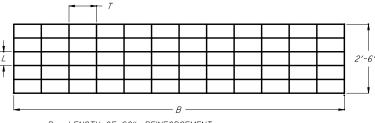




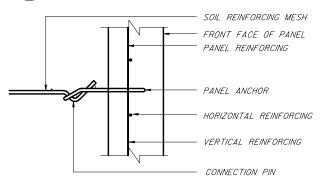
## STANDARD SQUARE PANEL





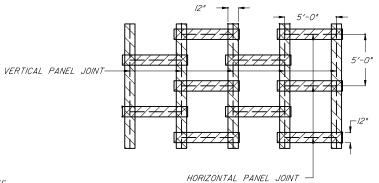


- B = LENGTH OF SOIL REINFORCEMENT W = WIDTH OF SOLL REINFORCING ELEMENT L = LONGITUDINAL WIRE SPACING (6" MAXIMUM) T = TRANSVERSE WIRE SPACING (2'-0" MAXIMUM)
- MW45 MINIMUM WIRE SIZE



NOTE: ANCHOR SIZE SHALL BE MINIMUM SIZE OF ATTACHED SOIL REINFORCING

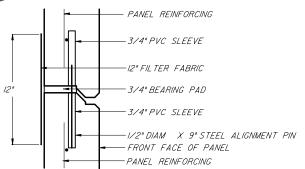




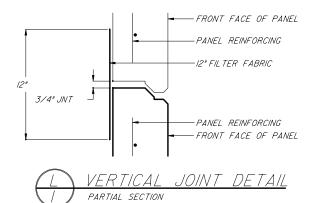
I. FILTER FABRIC SHALL BE PLACED OVER ALL VERTICAL AND HORIZONTAL JOINTS 2. FABRIC SHALL BE ADHERED TO BACK FACE OF PANEL WITH THE USE OF AN APPROVED

CONSTRUCTION ADHESIVE
3. MINIMUM OVER LAP OF 12" REQUIRED BETWEEN ROLLS.





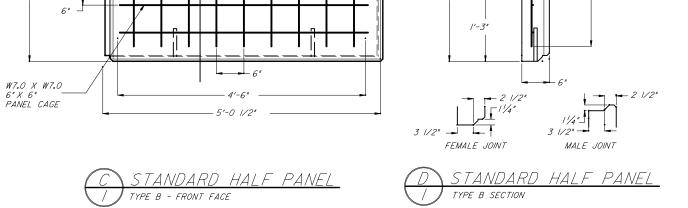
## HORIZONTAL JOINT DETAIL PARTIAL SECTION



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

RETAINING WALL SYSTEM HILFIKER SQUARE PANEL

	Names	Dates	Approve	' <sup>а ву</sup> / ) . П	12/
Designed By			St	ate Structures D	Design Engineer
Drawn By	TPT		Revision	Sheet No.	Index No.
Checked By	TBW		00	2 of 13	5021



2'-6 1/2"

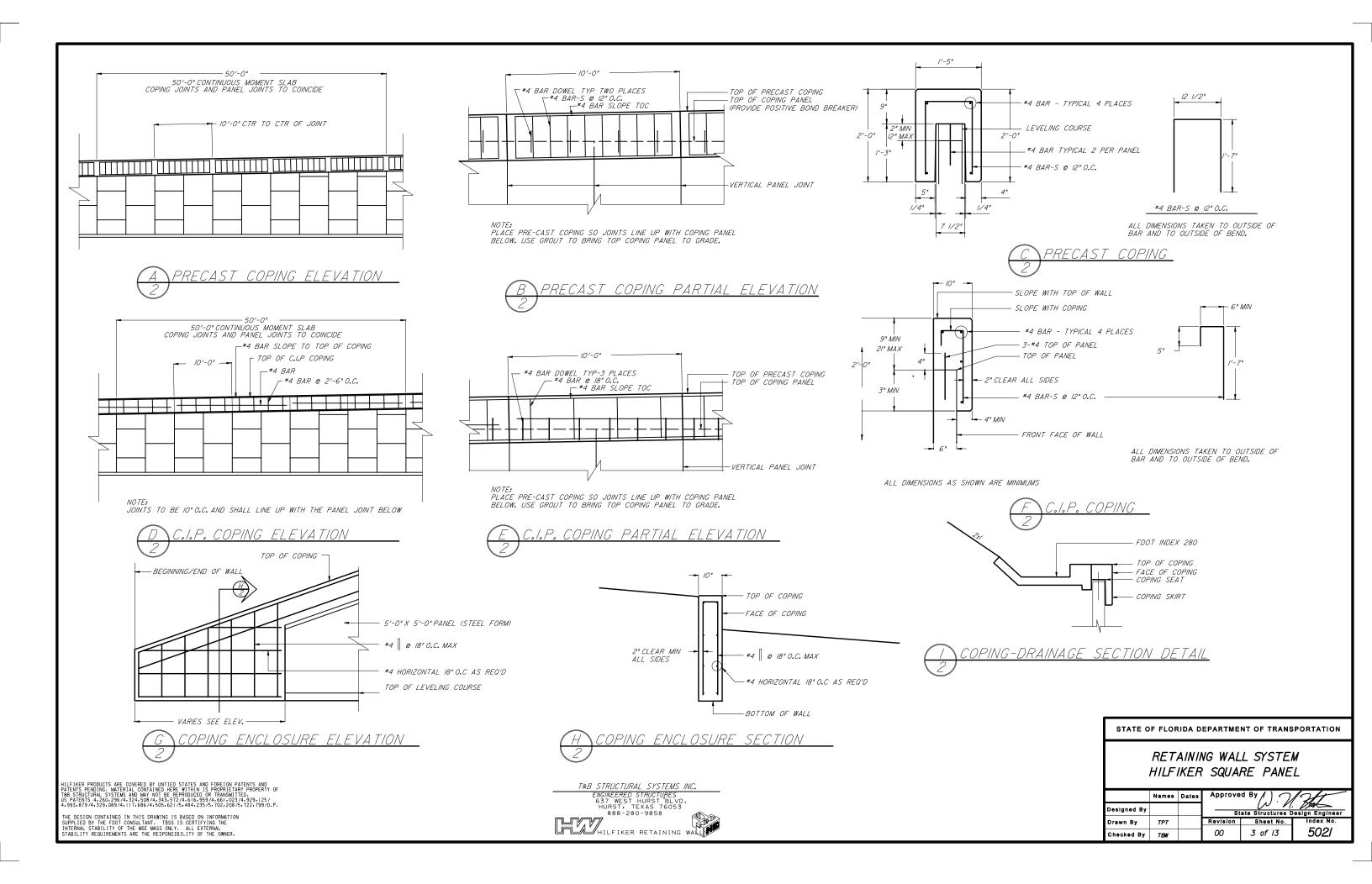
THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FOOT CONSULTANT. TBSS IS CERTIFYING THE INTERNAL STABLITY OF THE WSE MASS ONLY. ALL EXTERNAL STABLITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.

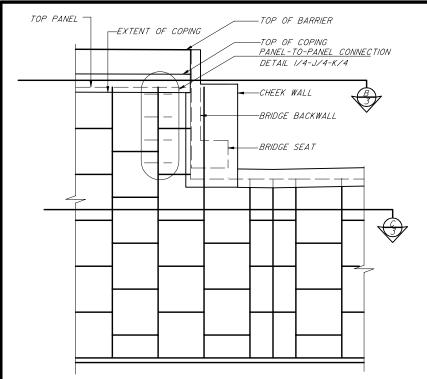
2'-6 1/2"

PANEL CAGE

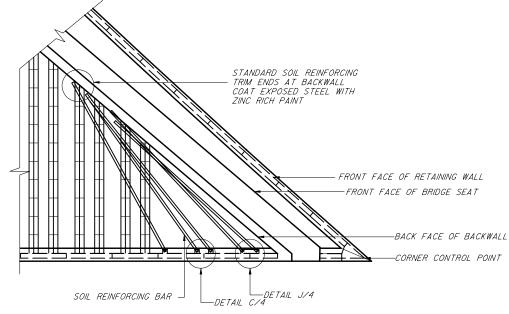


T&B STRUCTURAL SYSTEMS INC. ENGINEERED STRUCTURES 637 WEST HURST BLVD. HURST, TEXAS 76053





LEVATION ACUTE CORNER



ABUTMENT RETAINING WALL SOIL REINFORCEMENT NOT SHOWN FOR CLARITY END BENT BACK WALL REINFORCING NOT SHOWN FOR CLARITY

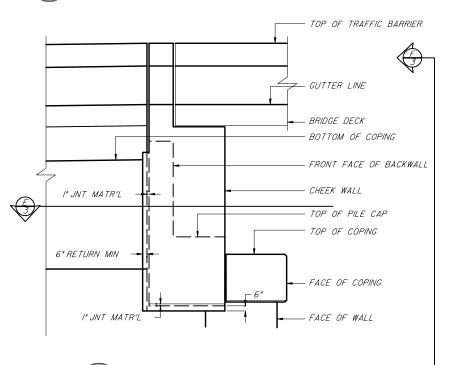
## \_\_STANDARD SOIL REINFORCING - FRONT FACE OF RETAINING WALL STANDARD SOIL REINFORCING TRIM ENDS AT BACKWALL COAT EXPOSED STEEL WITH ZINC RICH PAINT ABUTMENT SOIL REINFORCEMENT DETAIL C/4/-D/4 DETAIL E/4-F/4 - PILE OBSTRUCTION - CORNER CONTROL POINT 5'-0" LABUTMENT SOIL REINFORCING SOIL REINFORCING BAR

STANDARD SOIL REINFORCING TRIM ENDS AT BACKWALL COAT EXPOSED STEEL WITH ZINC RICH PAINT

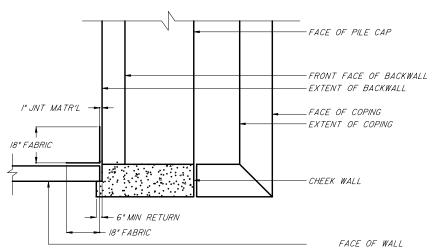
NOTE: REFERENCE DETAIL G/5 FOR ABUTMENT SOIL REINFORCEMENT SHOWN

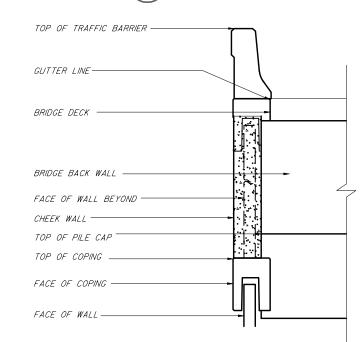
# CORNER PLAN SECTION





EVATION AT CHEEK WALL





<u>SECTION AT CHEEK WALL</u>

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

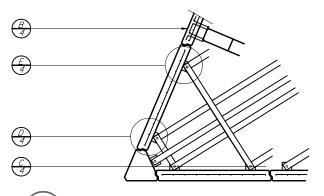
RETAINING WALL SYSTEM HILFIKER SQUARE PANEL

	Names	Dates	Approve	аву / ) 🦳	12/
Designed By			St	ate Structures D	Design Engineer
Drawn By	TPT		Revision	Sheet No.	Index No.
Checked By	TBW		00	4 of 13	5021

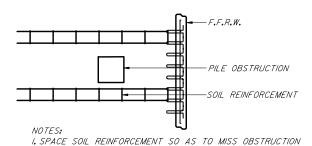
## PLAN SECTION AT CHEEK WALL

TAB STRUCTURAL SYSTEMS INC. ENGINEERED STRUCTURES 637 WEST HURST BLVD. HURST, TEXAS 76053 888-280-9858 HILFIKER RETAINING WALL

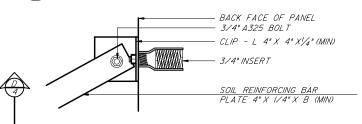
THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FOOT CONSULTANT. TBSS IS CERTIFYING THE INTERNAL STABILITY OF THE MSE MASS ONLY. ALL EXTERNAL STABILITY OF THE OWNER.



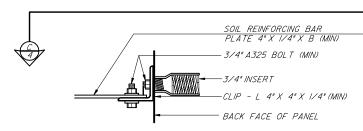
A ACUTE CORNER DETAIL
4 ALL STEEL TO BE HOT DIP GALVANIZED U.N.O.



R CONTINUOUS ANCHOR PLAN
A JALL STEEL TO BE HOT DIP GALVANIZED U.N.O.



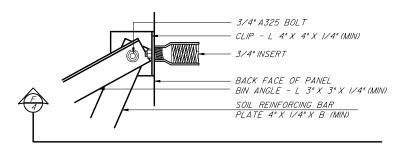
C SOIL REINFORCING BAR PLAN



D SOIL REINFORCING BAR DETAIL
4 ALL STEEL TO BE HOT DIP GALVANIZED U.N.O.

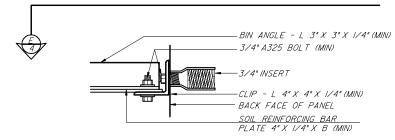
HILFIKER PRODUCTS ARE COVERED BY UNTIED STATES AND FOREIGN PATENTS AND PATENTS AND FOREIGN PATENTS AND MAIERIAL CONTAINED HERE WITHIN IS PROPRIETARY PROPERTY OF TAB STRUCTURAL SYSTEMS AND MAY NOT BE REPRODUCED OR TRANSMITTED. US PATENTS 4.260,296.44.324.508.493.572.4.616.999.44.61.023.74.992.81.25./

THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FOOT CONSULTANT. TBSS IS CERTIFYING THE INTERNAL STABILITY OF THE MSE MASS ONLY. ALL EXTERNAL STABILITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.

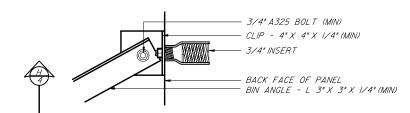


E COMBINATION ANGLE/BAR PLAN

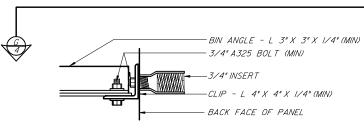
ALL STEEL TO BE HOT DIP GALVANIZED U.N.O.



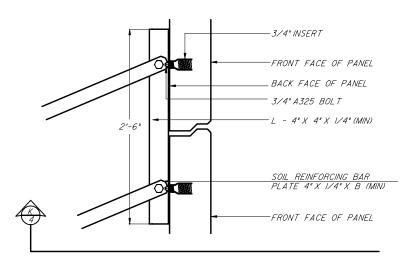
F COMBINATION STRAP/BAR DETAIL
4) ALL STEEL TO BE HOT DIP GALVANIZED U.N.O.



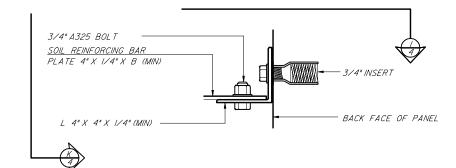
G BIN CLIP PLAN DETAIL
4 ALL STEEL TO BE HOT DIP GALVANIZED U.N.O.



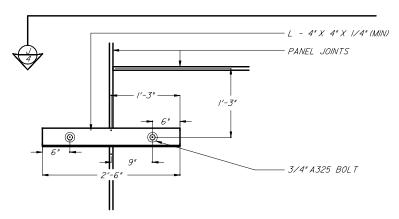
H BIN CLIP SECTION DETAIL
4 ALL STEEL TO BE HOT DIP GALVANIZED U.N.O.



ALL STEEL TO BE HOT DIP GALVANIZED U.N.O.



J PANEL - TO-PANEL CONNECTION SECTION
4 ALL STEEL TO BE HOT DIP GALVANIZED U.N.O.



PANEL-TO-PANEL CONNECTION ELEVATION

ALL STEEL TO BE HOT DIP GALVANIZED U.N.O.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

RETAINING WALL SYSTEM HILFIKER SQUARE PANEL

Designed By

Drawn By

TPT

Checked By

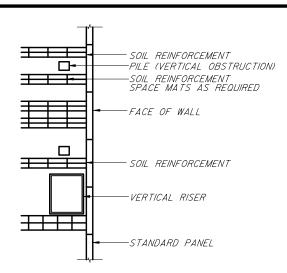
TBW

Revision Sheet No. Index No. 5021

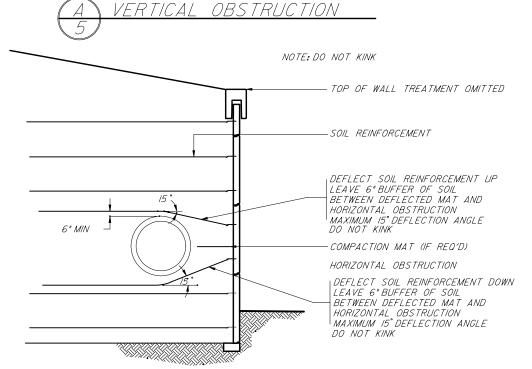
T&B STRUCTURAL SYSTEMS INC.

ENGINEERED STRUCTURES
637 WEST HURST BLVD.
HURST, TEXAS 76053
888-280-9858

HILFIKER RETAINING WALL



- I. VERTICAL OBSTRUCTIONS REQUIRE SPECIAL DESIGN CONSIDERATIONS
  2. THE DETAIL AS SHOWN IS FOR CONCEPT ONLY AND MAY VARY ON
- 3. REFERENCE SPECIAL DESIGN CALCULATIONS FOR DETAILS AND COMPONENT
- TYPE AND SIZE 4. OBSTRUCTION SHALL BE INSTALLED BEFORE WALL

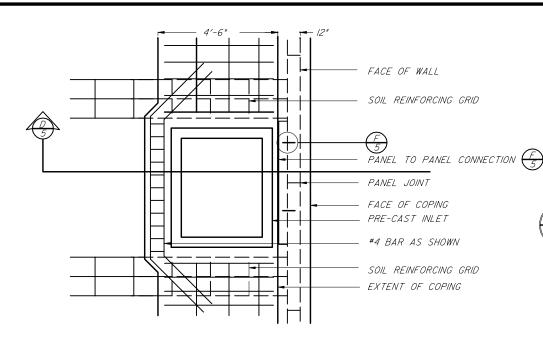


- 1. HORIZONTAL OBSTRUCTIONS REQUIRE SPECIAL DESIGN CONSIDERATIONS
  2. THE DETAIL AS SHOWN IS FOR CONCEPT ONLY AND MAY VARY ON FINAL DESIGN
- 3. REFERENCE SPECIAL DESIGN CALCULATIONS FOR DETAILS AND COMPONENT TYPE AND SIZE

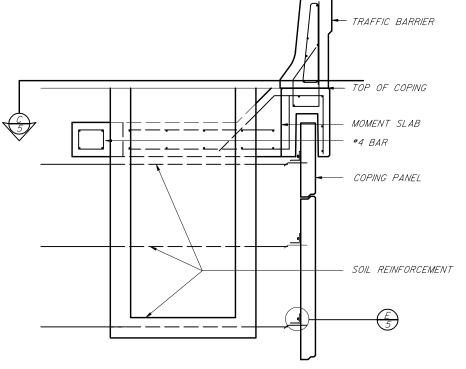


HILFIKER PRODUCTS ARE COVERED BY UNTIED STATES AND FOREIGN PATENTS AND PATENTS PENDING. MATERIAL CONTAINED HERE WITHIN IS PROPRIETARY PROPERTY OF TAB STRUCTURAL SYSTEMS AND MAY NOT BE REPRODUCED OR TRANSMITTED. US PATENTS 4.260.296/4.324.505.4343.5727.4.616.955/4.661.023/4.929,125/4.983,879/4.329,089/4.117.686/4.505.621/5.484.235/5.702,208/5.722.799/0.P.

THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION THE DESIGN CONTRIBED IN 113 DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FOOT CONSULTANT. TBSS IS CETTIFYING THE INTERNAL STABILITY OF THE MSE MASS ONLY. ALL EXTERNAL STABILITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.



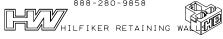
*OBSTRUCTION* 

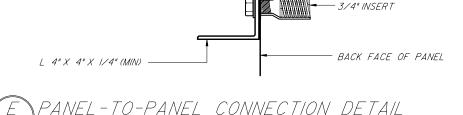


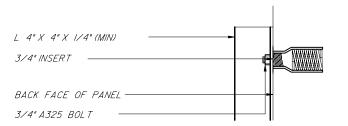


T&B STRUCTURAL SYSTEMS INC.

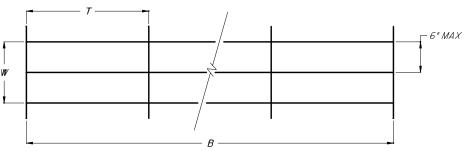
ENGINEERED STRUCUTRES
637 WEST HURST BLVD.
HURST, TEXAS 76053 888-280-9858











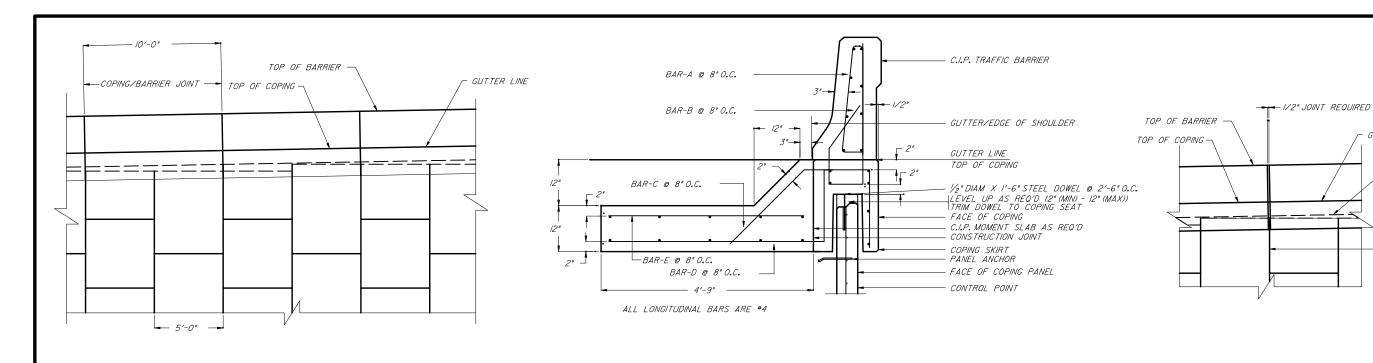
B = SOIL REINFORCING LENGTH T = TRANSVERSE WIRE SPACING (2'-0" MAX) W = WIDTH OF SOIL REINFORCING ELEMENT

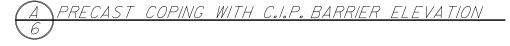
NOTE: THE MAT SHOWN IS USED TO PASS OBSTRUCTIONS AND TYPICALLY IS A WELDED WIRE MESH WITH LARGE DIAMETER WIRES. THE LONGITUDINAL WIRE SHALL BE EQUAL TO OR SMALLER THAN THE PANEL ANCHOR, A MINIMUM OF THREE LONGITUDINAL WIRES IS REQUIRED. THE MINIMUM WIRE SIZE SHALL

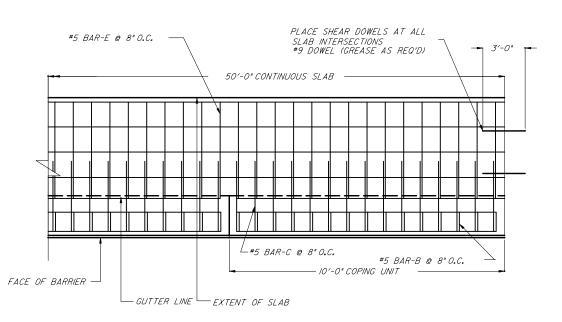
OBSTRUCTION SOIL REINFORCING PLAN

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

	Names	Dates	Approve	d By / )	12/1
Designed By			St	ate Structures D	esign Engineer
Drawn By	TPT		Revision	Sheet No.	Index No.
Checked By	TBW		00	6 of 13	5021





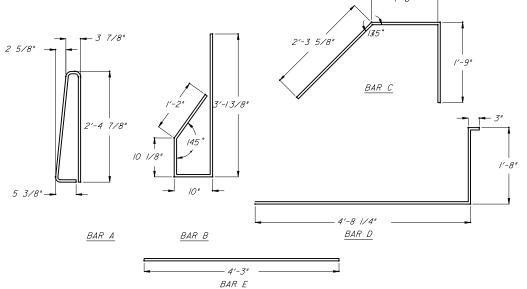


B PRECAST COPING WITH C.I.P. BARRIER PLAN

HILFIKER PRODUCTS ARE COVERED BY UNTIED STATES AND FOREIGN PATENTS AND PATENTS PRODUCTS ARE COVERED BY UNTIED STATES AND FOREIGN PATENTS AND PATENTS PROPRIETARY PROPERTY OF THE STRUCTURAL SYSTEMS AND MAY NOT BE REPRODUCED OR TRANSMITTED. US PATENTS 4,260,296.41,324,528,433.512,44.616,932,44.661,023,44,932,8174,329,089,41,176,664,703.621,75,484,235,75,702,206,75,722,799,0.P.

THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FDOT CONSULTANT. TBSS IS CERTIFYING THE INTERNAL STABILITY OF THE MSE MASS ONLY. ALL EXTERNAL STABILITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.

# C PRECAST COPING WITH C.I.P. BARRIER 6 AND C.I.P. JUNCTION SLAP

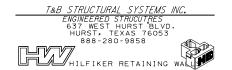


REBAR SCHEDULE
ZE 07Y LENGTH

MARK	SIZE	OTY	LENGTH	BENDING
А	#5	//	AS DETAILED	AS DETAILED
В	#5	//	AS DETAILED	AS DETAILED
С	#5	//	AS DETAILED	AS DETAILED
D	#5	//	AS DETAILED	AS DETAILED

QUANTITIES SHOWN ARE FOR A 10'-0" COPING SECTION

## D PRECAST BARRIER/COPING REINFORCING



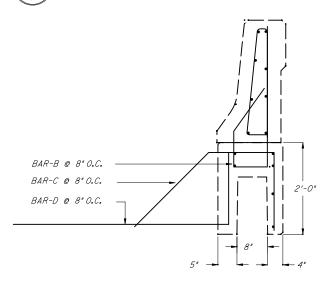
## E TRAFFIC BARRIER SLIP JOINT

GUTTER LINE

- LEVEL-UP CONCRETE

ALIGN SLIP JOINT WITH

PANEL JOINT BELOW

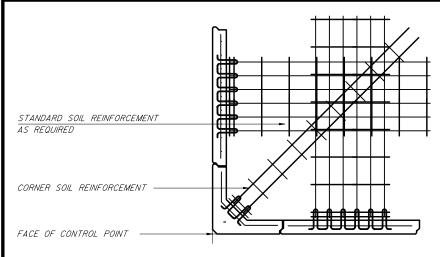


REFERNCE FDOT INDEX 700 FOR BARRIER DIMENSIONS NO SHOWN

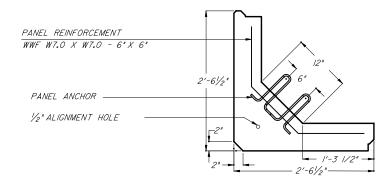
F PRECAST COPING REBAR LAYOUT

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

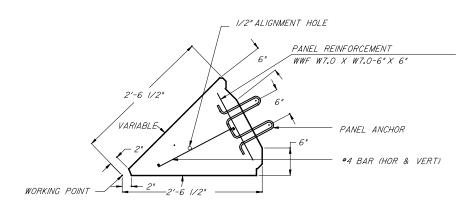
	Names	Dates	Approve	d By / )	12/
Designed By			St	ate Structures D	esign Engineer
Drawn By	TPT		Revision	Sheet No.	Index No.
Checked By	TBW		00	7 of 13	5021



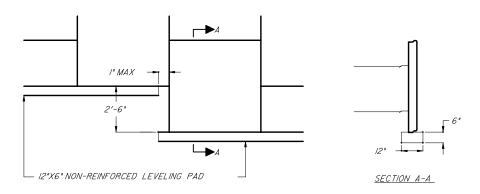




B ABTUSE CORNER PANEL
7 PANEL ANGLE VARIES FROM 90°TO 180°

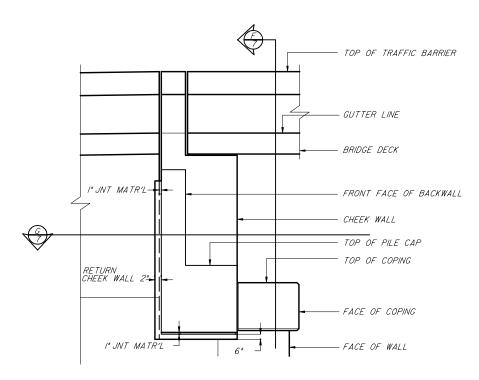




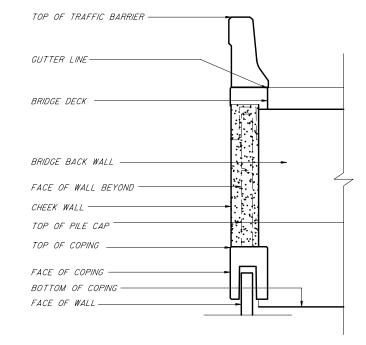


NOTE: LEVELING COURSE SHALL BE PLACED TO THE ELEVATIONS AS SHOWN ON THE PLANS. TOLERANCE FOR ELEVATIONS SHALL BE PLUS-MINUS  $\frac{1}{8}$ "

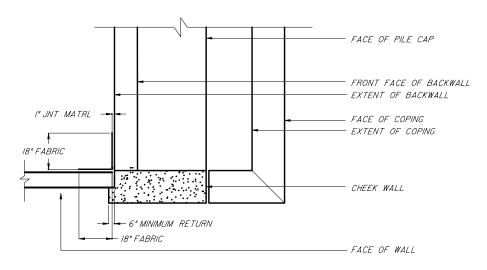
## D LEVELING COURSE STEP ELEVATION 7













HILFIKER PRODUCTS ARE COVERED BY UNTIED STATES AND FOREIGN PATENTS AND PATENTS PENDING. MATERIAL CONTAINED HERE WITHIN IS PROPRIETARY PROPERTY OF TAB STRUCTURAL SYSTEMS AND MAY NOT DE REPRODUCED OR TRANSMITTED. US PATENTS 4,260,296.44,324.508.44,343.572.44.616.959.44.661.023.44.929.125/4.993.879.44.329.089.44.17.6666.40.56.21/5.4984.255/5.702.2085.7.222.7997.0.P.

THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FDOT CONSULTANT. TBSS IS CERTIFYING THE INTERNAL STABILITY OF THE MSE WASS ONLY. ALL EXTERNAL STABILITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.

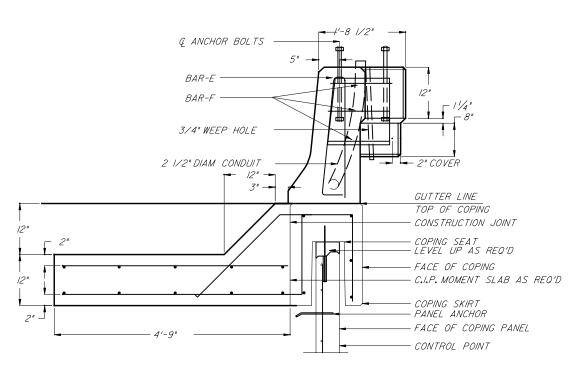
T&B STRUCTURAL SYSTEMS INC.

ENGINEERED STRUCTURES
637 WEST HURST BLVD.
HURST, TEXAS 76053
888-280-9858

HILFIKER RETAINING WALL

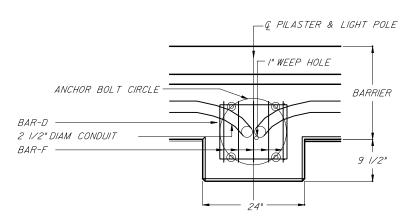
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

	Names	Dates	Approve	d By /	$\Omega$	12/1
Designed By			St	ate Structu	res D	esign Engineer
Drawn By	TPT		Revision	Sheet	No.	Index No.
Checked By	TBW		00	8 of 13	3	5021



FOR ADDITIONAL DETAILS REFERENCE FDOT LIGHT POLE PILASTER SEE STRUCTURES STANDARD DRAWING 500 FOR JUNCTION SLAB DIMENSIONS AND REINFORCING REFERENCE SHEET HW-6

# A PRECAST COPING WITH PILASTER SECTION

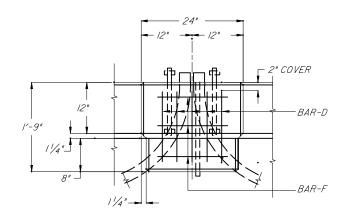


FOR ADDITIONAL DETAILS REFERENCE FDOT LIGHT POLE PILASTERS SEE STRUCTURES STANDARD DRAWING 500



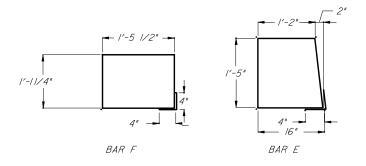
HILFIKER PRODUCTS ARE COVERED BY UNTIED STATES AND FOREIGN PATENTS AND PATENTS PENDING. MATERIAL CONTAINED HERE WITHIN IS PROPRIETARY PROPERTY OF T8B STRUCTURAL SYSTEMS AND MAY NOT BE REPRODUCED OR TRANSMITTED. US PATENTS 4.260.296/4.324.508/4.334.572/4.616.959/4.661.023/4.929.125/4.993.879/4.329.089/4.117.686/4.5505.621/5.484.235/5.702.208/5.722.799/0.P.

THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FOOT CONSULTANT. TBSS IS CERTIFYING THE INTERNAL STABILITY OF THE MSE MASS ONLY. ALL EXTERNAL STABILITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.



FOR ADDITIONAL DETAILS REFERENCE FDOT LIGHT POLE PILASTER SEE STRUCTURES STANDARD DRAWING 500

# C PILASTER ELEVATION



#### REBAR SCHEDULE

MARK	SIZE	QTY	LENGTH	BENDING
D	#5	5	AS DETAILED	AS DETAILED
F	#5	.3	AS DETAILED	AS DETAILED



STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

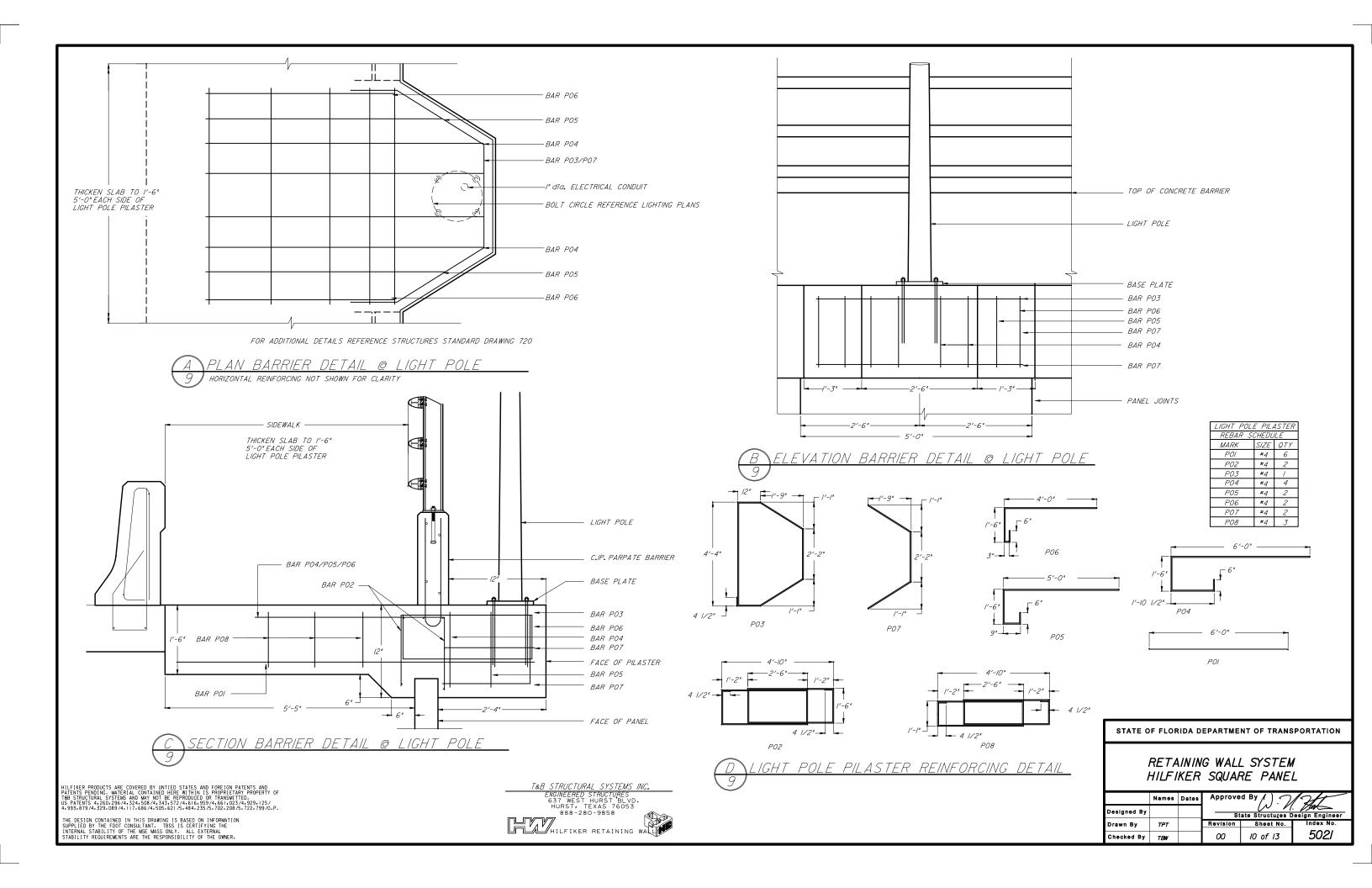
RETAINING WALL SYSTEM HILFIKER SQUARE PANEL

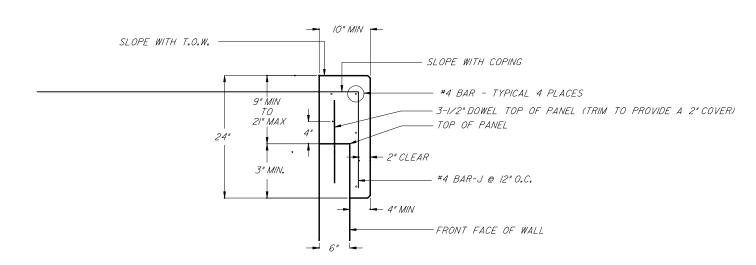
	Names	Dates	Approve	d By / ) 7	12/
Designed By				ate Structures D	esian Engineer
Drawn By	TPT		Revision	Sheet No.	Index No.
Checked By	TBW		00	9 of 13	5021

T&B STRUCTURAL SYSTEMS INC.

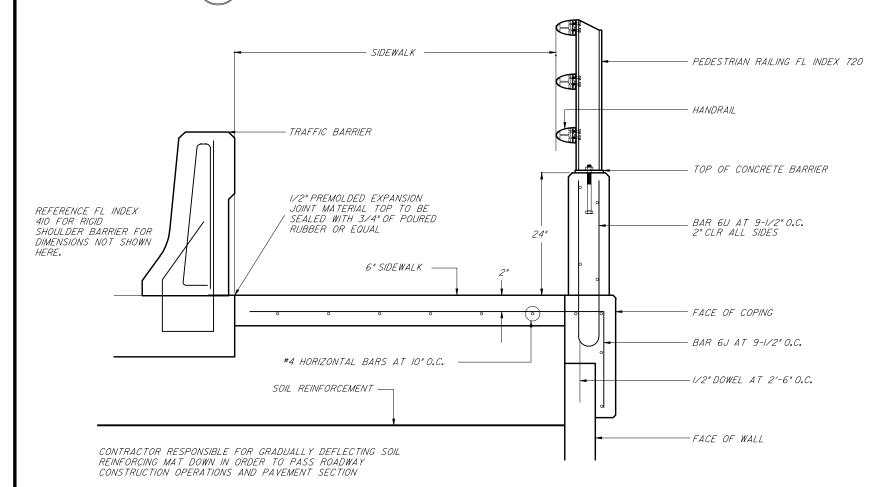
ENGINEERED STRUCTURES
637 WEST HURST BLVD.
HURST, TEXAS 76053
888-280-9858

HILFIKER RETAINING WALF





# A SECTION C.I.P. PARAPET COPING 10 HORIZONTAL REINFORCING NOT SHOWN FOR CLARITY



SECTION C.I.P. BARRIER WITH PEDESTRIAN RAILING

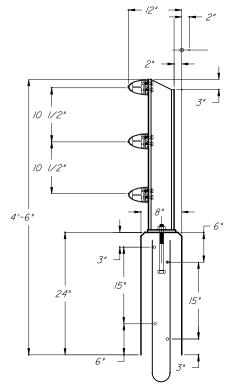
HILFIKER PRODUCTS ARE COVERED BY UNTIED STATES AND FOREIGN PATENTS AND PATENTS PENDING. MATERIAL CONTAINED HERE WITHIN IS PROPRIETARY PROPERTY OF TAB STRUCTURAL SYSTEMS AND MAY NOT BE REPRODUCED OR TRANSMITTED. US PATENTS 4.260.296/4.324.508/4.334.572/4.616.959/4.661.023/4.929.125/4.993.879/4.329.089/4.117.686/4.505.621/5.484.235/5.702.208/5.722.799/0.P.

THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FOOT CONSULTANT. TBSS IS CERTIFYING THE INTERNAL STABILITY OF THE MSE MASS ONLY. ALL EXTERNAL STABILITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.

T&B STRUCTURAL SYSTEMS INC.

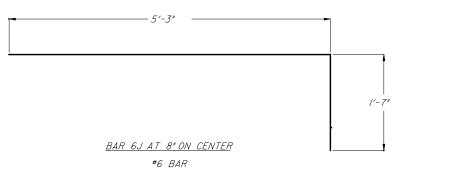
ENGINEERED STRUCTURES
637 WEST HURST BLVD.
HURST, TEXAS 76053
888-280-9858

HILFIKER RETAINING WALL



B SECTION C.I.P. PEDESTRIAN BARRIER

REFERENCE STRUCTURES STANDARD DRAWING 720 FOR DETAILS NOT SHOWN



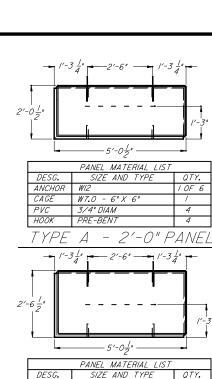
<u>BAR 6U AT 8"ON CENTER</u> #6 BAR

2'-4"

D. C.I.P. COPING WITH PEDESTRIAN BARRIER BAR DETAILS

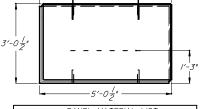
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

	Names	Dates	Approve	d By / )	12/
Designed By			St	ate Structures D	esign Engineer
Drawn By	TPT		Revision	Sheet No.	Index No.
Checked By	TBW		00	II of 13	<i>502l</i>



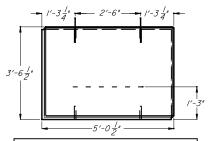
DESG.   SIZE AND TYPE   UTY.	2550	PANEL MATERIAL LIST	0.71/
CAGE W7.0 - 6" X 6" / PVC 3/4" DIAM 4	DESG.	SIZE AND TYPE	QTY.
PVC 3/4* DIAM 4		W12	10F 6
			/
HOOK PRE-BENT 4	PVC	3/4" DIAM	4
	HOOK	PRE-BENT	4





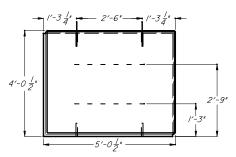
	PANEL MATERIAL LIST	
DESG.	SIZE AND TYPE	QTY.
ANCHOR	WI2	1 OF 6
CAGE	W7.0 - 6"X 6"	/
PVC	3/4" DIAM	4
HOOK	PRE-BENT	4

TYPE C - 3'-0" PANEL



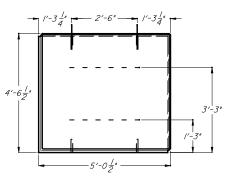
	PANEL MATERIAL LIST	
DESG.	SIZE AND TYPE	QTY.
ANCHOR	W12	1 OF 6
CAGE	W7.0 - 6"X 6"	/
PVC	3/4" DIAM	4
HOOK	PRE-BENT	4

TYPE D - 3'-6" PANEL



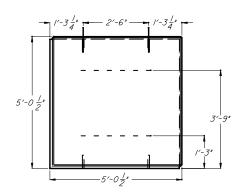
1			
	DESG.	QTY.	
	ANCHOR	2 OF 6	
	CAGE	W7.0 - 6" X 6"	/
1	PVC	3/4" DIAM	4
	HOOK	PRE-BENT	4

TYPE E - 4'-0" PANEL



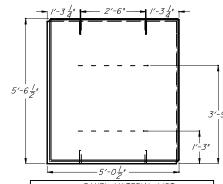
DESG.	SIZE AND TYPE	QTY.
ANCHOR	W12	2 OF 6
CAGE	W7.0 - 6"X 6"	/
PVC	3/4" DIAM	4
HOOK	PRE-BENT	4

TYPE F - 4'-6" PANEL

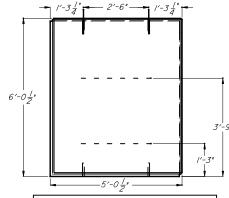


PANEL MATERIAL LIST					
DESG.	SIZE AND TYPE	QTY.			
ANCHOR	WI2	2 OF 6			
CAGE	W7.0 - 6"X 6"	/			
PVC	3/4" DIAM	4			
HOOK	PRE-BENT	4			

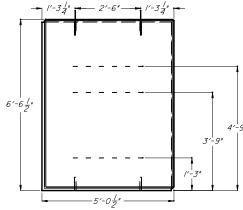
TYPE G - 5'-0" PANEL



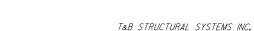
	DESG.	SIZE AND TYPE	QTY.
	ANCHOR	WI2	2 OF 6
	CAGE	W7.0 - 6" X 6"	/
	PVC	3/4" DIAM	4
	HOOK	PRE-BENT	4
7	VDC	U - 5/-6" D1	Λ / <u>C</u> /



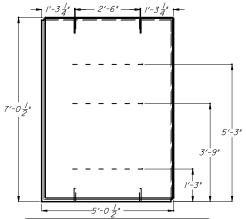
	2	
DESG.	SIZE AND TYPE	QTY.
ANCHOR	WI2	2 OF 6
CAGE	W7.0 - 6"X 6"	/
PVC	3/4" DIAM	4
HOOK	PRE-BENT	4
YPE	J - 6'-0" PA	NEL
	ANCHOR CAGE PVC	ANCHOR WI2  CAGE W7.0 - 6" X 6"  PVC 3/4" DIAM  HOOK PRE-BENT



DESG.	SIZE AND TYPE	QTY.
ANCHOR	WI2	3 OF 6
CAGE	W7.0 - 6" X 6"	/
PVC	3/4" DIAM	4
HOOK	PRE-BENT	4
TYPE	K - 6'-6"PA	4NEL

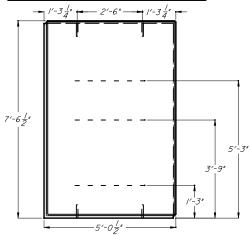






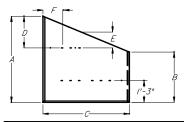
5'-0 <del>2</del> "							
PANEL MATERIAL LIST							
DESG.	SIZE AND TYPE	QTY.					
<i>ANCHOR</i>	WI2	3 OF 6					
CAGE	W7.0 - 6" X 6"	/					
PVC	3/4" DIAM	4					
HOOK	PRE-BENT	4					

TYPE L - 7'-0" PANEL



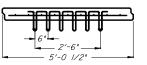
	_					
PANEL MATERIAL LIST						
DESG.	SIZE AND TYPE	QTY.				
ANCHOR	W12	10F 6				
CAGE	W7.0 - 6"X 6"	/				
PVC	3/4" DIAM	4				
HOOK	PRE-BENT	4				

TYPE M - 7'-6" PANEL

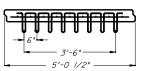


<u> </u>						
DESG.	SIZE AND TYPE	QTY.				
ANCHOR	W12	VARIES				
CAGE	W7.0 - 6" X 6"	/				
PVC	3/4" DIAM	4				
HOOK	PRE-BENT	4				

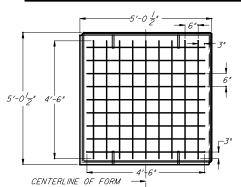
SPECIAL SLOPED PANEL



## STANDARD ANCHOR LAYOUT



### CONTINUOUS ANCHOR LAYOUT



NOTE: I. MINIMUM 3" COVER AT ALL EDGES

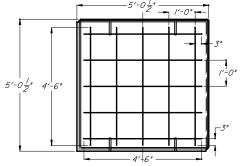
2. CENTER MESH IN FORM
3. WIRE MESH TO BE PLACED ON TOP OF PVC ALIGNMENT

SLEEVES. 4. TRIM AS REQUIRED

5. MINIMUM W7.0 X W7.0 WWF

## PANEL REINFORCING LAYOUT

WELDED WIRE MESH



CENTERLINE OF FORM ──

NOTE:
I. MINIMUM 3" COVER AT ALL EDGES
2. CENTER REBAR IN FORM
3. REBAR TO BE PLACED ON TOP OF PVC ALIGNMENT

S. REDAR TO BE PLACED ON TOP OF TVE ALIGNMEN SLEEVES. 4. TRIM AS REQUIRED 5. MINIMUM \*4 BAR BOTH WAYS 6. TIE REBAR TOGETHER AT INTERSECTION POINTS

PANEL REINFORCING LAYOUT

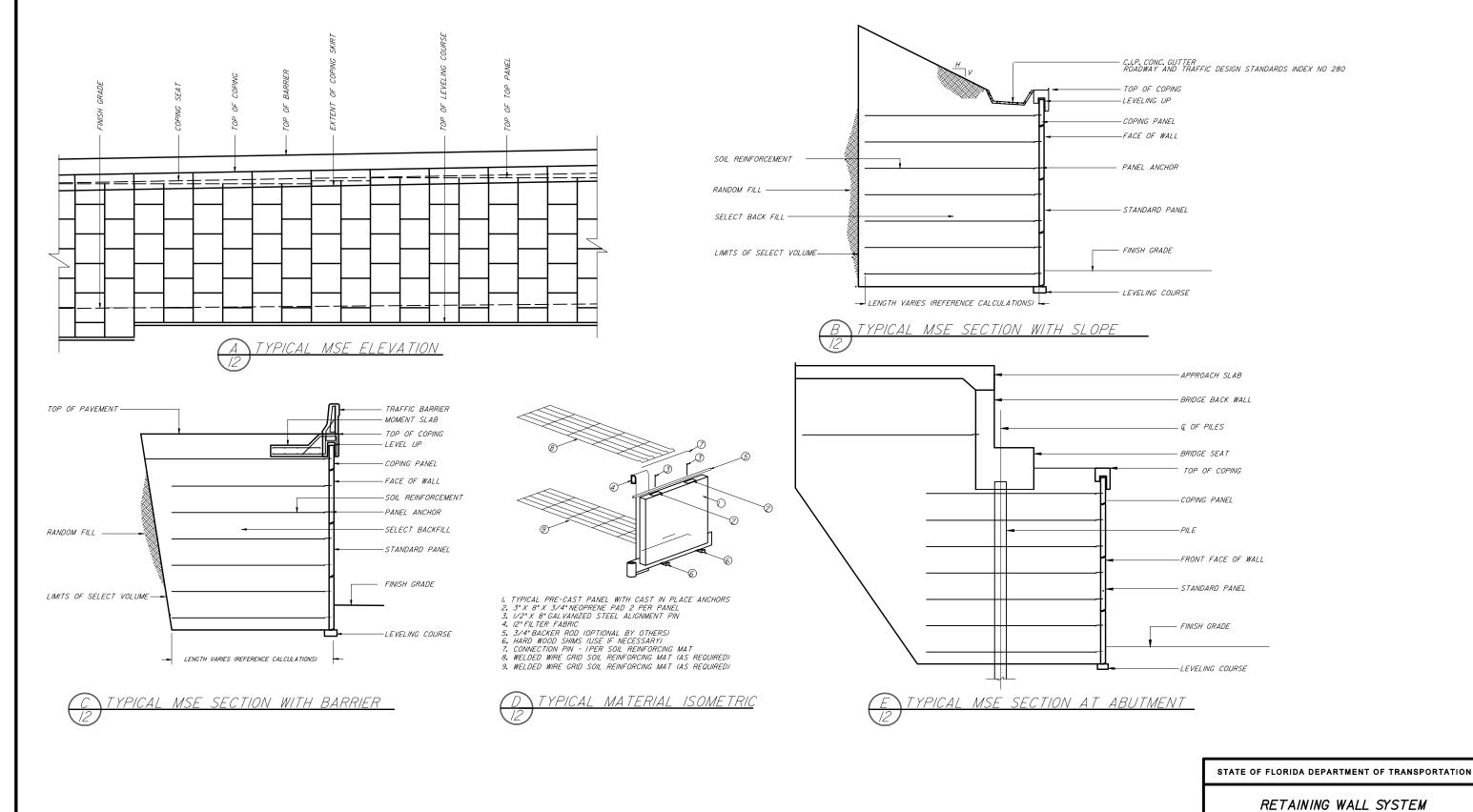
OPTIONAL REBAR

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

RETAINING WALL SYSTEM HILFIKER SQUARE PANEL

	Names	Dates	Approve	d By / ) . 7	12/
Designed By			State Structures Design Engin		
Drawn By	TPT		Revision	Sheet No.	Index No.
Checked By	TBW		00	12 of 13	5021

THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FOOT CONSULTANT. TBSS IS CERTIFYING THE INTERNAL STABLILITY OF THE MSE MASS ONLY. ALL EXTERNAL STABLLITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.



HILFIKER PRODUCTS AME COVERED BY UNTIED STATES AND FOREIGN PATENTS AND PATENTS FENDING. MATERIAL CONTAINED HERE WITHIN IS PROPRIETARY PROPERTY OF TAB STRUCTURAL SYSTEMS AND MAY NOT BE REPRODUCED OR TRANSMITTED. US PATENTS 4.260.296/4.254.508/4.345.727.4/66.69274.661.0234.929.125/ 4.993.879/4.329.089/4.117.686/4.505.621/5.484.235/5.702.208/5.722.799/0.P

THE DESIGN CONTAINED IN THIS DRAWING IS BASED ON INFORMATION SUPPLIED BY THE FOOT CONSULTANT. TBSS IS CERTIFYING THE NIFERNAL STRAILITY OF THE WSE MASS ONLY. ALL EXTERNAL STABILITY REQUIREMENTS ARE THE RESPONSIBILITY OF THE OWNER.

T&B STRUCTURAL SYSTEMS INC.

ENGINEERED STRUCTURES
637 WEST HURST 'BLVD'.
HURST, TEXAS 76053
888-280-9858
HILFIKER RETAINING WALL

	Names	Dates	Approved By			
Designed By			State Structures Design Engineer			
Drawn By	TPT		Revision	Sheet No.	Index No.	
Checked By	TBW		00	13 of 13	5021	